

English D
Lexical Semantics Course
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HT 2002
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Notes on

Meaning in Language

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Chapter 5 Introduction to lexical semantics

The nature of word meaning

[Recap: Phoneme: minimal meaning *distinguishing* element: /d/, /f/, /u:/.
Morpheme: minimal meaning *bearing* element: *dis-*, *zebra*, *-tion*]

The (prototypical) word – ‘a minimal permutable (‘utbytbart’) element’

- *Can* be moved about in a sentence (or rather, position altered): *Am I mad?/I am mad.*
- *Can't* be
 - broken up by other elements [exception: ‘infixes’ – unusual in Eng.]
 - have its parts reordered: *needlessly* – **lylessneed*

Internal structure: **root** morpheme [+ **derivational** and/or **inflectional** morphemes (affixes)].
Grammatical words are said to have **no** root morpheme: *on, a, or, the*

Note on **compounds**: *polar bear, bluebird, sea horse* – look like two morphemes, but are (semantically) best considered one unit – one root morpheme. Ex:

Polar bear – ?This bear is polar.

Bluebird – ?a/*any bird which is blue

Sea horse - *a horse (that lives/swims/grazes) in/by the sea

Cf. ordinary nominal modification: *red house* – *the house is red*

Prosody is indicative (except in very long words): ‘*sea ,lion* (compound) vs. ‘*big ‘house* (common noun phrase).

What is a **word** in lexical semantics?

- **Word form** – phonologically (and/or graphically) distinct “shape”: *bank, mole*
- **Lexeme** – phonologically and semantically distinct, autonomous symbolic unit (i.e., it can stand alone because it contains a *root* morpheme): *bank₁, bank₂, mole₁, swimming*, etc.
 - Inflected forms based on the same root count as the same lexeme: *swims, swimming, swam, swum*.
- In lexical semantics, a word is the same as a **lexeme** (=lexical unit).

[Re-cap: Derivational affixes/morphemes form new lexemes/words: *dis-* + *trust* > *distrust*
Inflectional affixes/morphemes don't: *trust* + *-ed* > *trusted*, a form of the lexeme *trust*. Cf. *discuss* – one morpheme; there's no *cuss*!]

[continuum]

Closed-set items (grammatical words) <-----> **Open-set items** (“content” words)

- Words need to be used in a **context** to make (much) sense
 - **context** is often used in the sense *everything but the utterance itself*: common knowledge, mutual assumptions, previous discourse, the present situation, and inferences made from all of these
- Universal constraints on word meaning:
 - a single word cannot constitute [subject + predicate]
 - cognitively ‘useless’ words – such as combinations of parts of salient, independent wholes – don’t tend to occur: e.g., there is no word that means THE REAR END OF A COW AND THREE DAFFODILS
 - there mustn’t be a gap in the ‘internal dependency chain’: a word could mean VERY SMALL ANIMAL, but not *VERY ANIMAL

The major problems

To describe

- what words mean (semantic analysis/decomposition)
- how word-meaning varies with context (discourse analysis)
- how word-meanings are related and how they contrast (paradigmatic relations)
- the syntactic (and idiomatic) properties of words (syntagmatic relations)

Approaches

- Two-level vs. One-level:
 - Two-level: ‘there’s a difference between **linguistic** meaning and other, **non-linguistic** (encyclopaedic) meaning; linguistic meaning is simpler and can be formalised more easily, e.g. in terms of semantic features’
 - One-level: ‘there is *no* evidence that linguistic meaning is different in nature from encyclopaedic meaning; all meaning is conceptual, and grammar carries meaning too’
- Monosemic vs. Polysemic:
 - Mono: as **few** senses of words as possible are recognised; other senses are explained via conventional patterns of extension
 - Poly: **all** senses/facets of meaning are recognised, since extensions are often irregular and cannot be dealt with via general rules
- Componential vs. holist:
 - **Componential**: word meanings are constructed out of **features** - smaller units of meaning, much like molecules consist of atoms; these features are often quite abstract, can be combined in different ways to capture the meaning of words (pioneered by Danish linguist Hjelmslev).
 - **Holist**: the meaning of a word incorporates **a whole semantic field** or is essentially infinite, but is constrained by the contrasting meanings of other words.
 - **Formal approaches** (from analytic philosophy; typically componential): try to explain human language in terms of objectivist, formal logic; not very successful.
 - **Conceptual approaches** (usually holist): associate word meaning with the (mental) concepts which they give access to in the cognitive system; at the centre is the prototype theory of lexical organisation, including such notions as family resemblance and basic level (we’ll return to this later); it’s non-componentialist, single-level, recognises the embodied nature of human language and cognition (the properties of body and mind are seen as an integrated unit, not a dichotomy).

Chapter 6 Contextual variability

Aspects of distinctness (ambiguity -----> vagueness)

Problem: interpretation of a word (form) varies greatly with *context*. How **distinct** are the various readings? **Antagonistic** (mutually exclusive, most distinct); **discrete** (clear semantic boundary, but some “connection”); **non-discrete** (vagueness)?

Ambiguous: *bank* (money/nature) <-- *paint* (houses/pictures) --> Vague: *child* (male/female)

- Degree of discreteness – how to tell:
 - **Identity test**: X has a Y; so has Z. E.g. Y = *light* (coat): 1. not heavy, or 2. not dark – discrete senses, vs. Y = *child*: 1. male, 2. female offspring – non-discrete senses)
 - **Independent truth conditions**: *Mary’s coat is black and weighs 100 grams*.
Is it: *light*₁? True; *light*₂? False.
 - **Independent sense relations**: *light*₁ - opposite: DARK; *light*₂ - opposite: HEAVY.
 - **Autonomy** (with hyponymic items): *dog*₁ – canine animal: *dog*₂ – male canine.
I prefer dogs [male canines/*canines] *to bitches* [female canines].

Senses

For a word (form) to have different **senses** (be *ambiguous*), the distinct meanings must be **established**, i.e., permanently stored in memory, and not just be possible but untypical uses in a specialised context (“coerced” polysemy).

- **Homonymy**: no retrievable conceptual connection between the senses; the items are considered distinct lexemes: *mole*₁ (OE *mál*) – an animal, *mole*₂ (ME *mol*, related to *mould*) – area of skin pigmentation, *mole*₃ (Ofr *môle*) – a breakwater, *mole*₄ (shortened from *molecule*) – a (very small) unit of amount-of-substance
- **Polysemy**: senses “connected”, often as **more and less specialised**: *dog* > *dog* (= not *bitch*); or via **metaphor** (concrete/abstract): *position* (physical) > *position* (e.g. ideological); or **meronymy**: *arm* (incl. *hand*) – *arm* (excl. *hand*); **metonymy**: *head* (of body) – *head* (the top part of various things, as in *cylinder head*, FROTH ON BEER, etc.)

Note the potential difference between H and P from a synchronic vs. a diachronic perspective. E.g., what appears as homonymy to a normal speaker may be polysemy historically speaking. IMO, only a synchronic perspective makes sense if the objective is to describe how language is organised in the mind. In studies of language history, a diachronic perspective is natural.

Even so, there are bound to be cases where there is disagreement among speakers; e.g. *mole* – a small (seemingly innocent) animal that digs (and possibly undermines the ground) ?> *mole* – a spy who has infiltrated an organisation and become a trusted member of it. Do you perceive the polysemic connection (based on the associations within parentheses)? Or are they homonymous to you?

Varieties of polysemy

- **Linear polysemy** – one sense is a specialisation of the other:
 - Autohyponymy: basic/specialised sense: *drink* (anything)>*drink* (alcohol)
 - Automeronymy: basic/subpart sense: *door* (whole structure)>*door* (panel)
 - Autohyperonymy (autosuperordin.): basic/wider sense: *cow* (fem.)>*cow* (any bovine)
 - Autoholonymy: basic/larger part sense: *leg* (thigh + calf)>*leg* (incl. knee and foot)

- **Non-linear polysemy** – one sense is **figurative** (non-literal) or involves a different **construal** (way of “looking” at something), based on some “facet”:
 - Metaphor: resemblance between domains: *swallow* (a pill)/*swallow* (an argument)
 - Metonymy: stand-for association within a domain: *hands* (body part)/*hands* (manual labour: whole persons accessed via their hands, the most salient parts in the context)
 - Other: different construals, e.g. *month* (Jan 1- Jan 31)/*month* (period of 30 days)

Most polysemy is non-systematic; exceptions include the most basic *conceptual metaphor* patterns, e.g. UP IS MORE/DOWN IS LESS (high *price*, falling *temperature*) and some metonymic patterns, such as PLANT – FLOWER OF PLANT, ANIMAL – MEAT OF ANIMAL, INSTRUMENT - SOUND OF INSTRUMENT.

Between polysemy and monosemy

- **Facets**: discrete senses which show ambiguity, but not antagonism: e.g. *book* (physical object)/ (textual content); *bank* (institution/building/personnel). The different senses of these words are somehow the *same concept* – but with a dual (etc.) nature.
- **Perspectives**: a certain level of discreteness of sense, but no autonomy (independence).
Qualia roles: seeing something as
 - a whole with parts (**constitutive**)
 - a kind among other kinds (**formal**)
 - having a certain function/role (**telic**)
 - from the point of view of origin/development (**agentive**)
- **Sub-senses**: lower level of discreteness than full senses
E.g. *knife* – tool (for carving/cutting/cooking/eating) / weapon (for stabbing/cutting)
- **Sense spectra**
E.g. mouth (of human>of horse>>>>of bottle>>>>>of cave>>>>>>>of river)
| core senses | more “distant” extensions >

Sense modulation

Enrichment – context *adds* features of meaning which are compatible with, but not made explicit by, the lexical item itself.

Hyponymic: *The coffee burnt my tongue* (HOT COFFEE)

Meronymic: *Sue’s eyes are green (IRISES)/red (blood-shot WHITES OF EYES)*

Impoverishment – context allows a *looser* interpretation, e.g. a deviation from the prototype.

The circumference of a circle is equal to its diameter x pi. (“perfect” circle)

The participants formed a circle round their leader. (loosened criteria of “roundness”)

Chapter 7 Word meanings and concepts

Do words “mean” **things** (objects, events or phenomena) in “objective reality” (whatever that means), or do they “mean” **ideas** (concepts/organised mental patterns/neuronic routines)?

The latter makes better sense (to Cruse – and me), (1) since a lot of discourse is about phenomena, etc., that are fictive or hypothetical and have no objective existence, and (2) even concrete things can’t be referred to without first invoking a thought in the listener’s mind which redirects attention..

This is not to deny in any way that (experience of) “real” things – substance/matter – be a prerequisite for basic concepts, which are in turn a prerequisite for more advanced concepts. But it is also apparent that the phylogenetic properties of the human organism – as well as our biotope and cultural aspects – impose constraints on conceptualisation: a dog wouldn’t “be” a dog to a cognate being who didn’t or couldn’t experience it as meaningfully distinct from some things and similar to others.

What are **concepts** (in cognitive linguistics)? Prerequisites to communication, not to mention (abstract) cognition.

- **Attribute model:** Organised (but dynamic) bundles of stored knowledge (**conceptual categories**), generalised from repeated experiences.
- **Network model:** A complex, multi-dimensional “web” of associations that are more or less strongly (and in different ways) *linked* to each other. (“Strength” of connection also varies dynamically with context.)

Link-types include: STAND FOR (e.g. symbol–concept); BE A PART OF; BE A KIND OF; BE USED FOR; BE THE OPPOSITE OF, etc.

The models can be considered as complementary – “two sides of the same coin”.

Cruse argues that e.g. *horse/nag/steed* designate *the same* concept, but have **word-specific properties** (positive/negative and stylistic associations) – which **modulate** the meaning of the concept. (Others might say, instead, that they are not the same, albeit closely related, concepts.)

Some semanticists propose **three** independent levels of conceptual structure: **phonological**, **syntactic** and **semantic** (e.g. Jackendoff).

Others (e.g. Langacker) regard the system as **bipolar: phonological vs. semantic “poles”**, which together form **symbolic units** of highly varying complexity.

Jackendoff (following Chomsky) still regards syntax as an *autonomous* level, whereas Langacker and others makes no absolute distinction between grammatical and lexical meaning, but sees them as overlapping parts on a continuum.

The Nature of concepts

“CLASSICAL”		“COGNITIVE”
static, discrete building blocks	vs.	dynamic, fuzzy, graded, attribute bundles

Classical approach (Aristotle) – **Necessary and Sufficient Conditions/features/criteria:** a set of (often) abstract attributes which are supposed to precisely capture the meaning of a linguistic item.

Problem: this only works with a number of simple, concrete nouns (*girl, bachelor*), and not really well with these either. Completely ignores associative meaning, and tends to produce circular periphrasis: e.g., *horse* – EQUINE; but EQUINE is just another way of saying ‘*horse*’!

The classical approach is in some ways the antithesis of a cognitive view of meaning, where e.g. natural-kind terms are acknowledged as requiring such things as perceptual and interactive experience to be conceptualised (acquire useful meaning) – they can't be analysed.

Cognitive approach

Prototypes

Although it may seem intuitively odd, experiments show that most categories have **fuzzy** and **contextually flexible boundaries**: some instances (examples) – borderline cases – are harder to categorise than others – prototypical instances; e.g. a nuance between *red* and *blue* may be categorised differently by different subjects, whereas the colour of *blood* or *the sky* is not.

It is thought that rather than checking for necessary features, the mind uses the “images” of central examples as “points of reference” to determine “goodness of example”/(degree of) membership of an instance relative to a category. Prototypes are most apparent at the ...

Basic level

The primary level of conceptualisation; where we find words such as *cat*, *bike*, *yellow*, *run*, etc.; first learned, most useful/most often used; maximally contrastive, while semantically still relatively homogeneous; associated with basic forms of interaction (riding, sitting, patting) ; either concrete (*chair*) or associated with concrete experiences (*anger*, *joy*).

Cf. *dandelion* (**subordinate** level) – has only a few attributes that distinguish it from other flowers; shares **gestalt** (see below) and most attributes with the basic word *flower*.

Cf. also *vehicle* (**superordinate** level) – heterogeneous, collective category (*cars*, *trucks*, etc); no common “gestalt”; typically shows a **family resemblance** structure (see below).

These latter two are “parasitic” on the basic level, in the sense that they are secondary to the basic level – they “come later” in cognitive/lexical development and are based on it.

Family resemblance

‘A shares some properties with B, and B with C, but C may have little in common with A.’ Typically occurs in lexical levels above the basic level (*game* is the classic example adduced Wittgenstein), and in grammatical words (esp. prepositions – *over* is a good example). There may be no salient attribute common to the whole category, which is primarily held together by attribute “links”.

(Idealised) Cognitive/Cultural Models - ICMs

“How things hang together” – differently depending on cultural aspects; the typical *table* in Japan is quite different from a typical Swedish *table* although it has the same general properties and function; a French *dejeuner* is croissant and coffee – an English *breakfast* is more substantial and may include bacon and eggs, or even kippers (function is the same).

ICMs may have consequences on categorisation; e.g., what may be cognitively the basic level to a typical city-dweller – e.g. *tree*, *bird* – may be superordinate to e.g. a florist, whose basic level is at the *oak*, *fur*, *thrush*, *crow*, etc. level.¹ (I know this is a simplification!)

Attributes, etc.

While cognitivists talk of attributes, these are not like features, in that there are no necessary-and-sufficient criteria, and attributes are not “building blocks” but rather abstractions made to facilitate comparison between categories. A prototypical example is said to have the largest

¹ The conversational basic-level of the expert is of course adaptable to that of the addressee. Also, there's no suggestion that the average person doesn't notice the difference between an oak and a fur, just that this finer distinction may be less cognitively salient, and hence less frequently felt to be a relevant distinction.

number of typical attributes, so that e.g. a three-legged, tailless cat would be considered non-prototypical in that it lacks some of these (FOUR LEGS, TAIL). Such an animal would still be categorised as a cat, however, since these attributes are not necessary, although part of the “image” we use to determine its kind (perhaps one might say that the brain “repairs” the defective exemplar by mentally adding the missing bits).

Similarly, a subcategory of a category that shows a prototype effect may be more or less prototypical *as category*, depending on presence/absence of typical attributes (e.g. *fig* in the fruit category is pretty far from the *apple/orange/banana* centre; so is *penguin* in the *bird* category – CAN’T FLY, WALKS UPRIGHT). So, prototypicality may pertain either (or both) to things and to (sub)types.

Some have equated score in goodness-of-example rating tests with degree-of-membership, but this is controversial (e.g. “*chair* is a ‘better’ piece of furniture than *sofa* because it comes to mind first”). Prototype effects show more clearly at **category boundaries** (*chair/sofa/table* are ‘better’ items of furniture than *TV*, but you might still put a crochet cloth on the TV, as you would on a table).

It should also be noted that prototypicality is highly **context sensitive** – dependent of the underlying **cognitive models** evoked by the speech situation: e.g. a *guppy* is not a “central” FISH in a <FISHING> context, but quite prototypical in a <(DOMESTIC)AQUARIUM> context.

Categories vary a lot in terms of their **internal structures**: some are very fuzzy (esp. more abstract ones) while others come close to the “classical” ideal of sharp boundaries; cf. *game*, *adequate*, *tool* (fuzzy) vs. *even number*, *metre*, *sodium chloride* (sharp[er] boundaries).

Domains

Concepts only make sense against the background of **domains** (Langacker) – (clusters of) concepts of a more general nature required to understand the concept at hand. E.g., *radius* only makes sense against the background of a CIRCLE; *spoke* requires the background knowledge of a WHEEL, and *wheel* needs the image of a BIKE, CAR, LOCOMOTIVE, or other vehicle or piece of machinery. Langacker proposes the terms **profile** (*spoke*) and **base** (*wheel*) for these relations.

Some domains, which cannot be further analysed, are called **basic domains**; e.g. SPACE, TIME, MATTER, QUANTITY, etc. Most concepts are profiled against a cluster of domains, which, in turn, can be analysed into clusters of simpler domains, etc. Such a network of domains is referred to as a **domain matrix**. All this complexity is basically a formalised way of saying that the meaning of all lexical items involves encyclopaedic, rather than fragmented, knowledge – that it all “hangs together”. (Therefore, meaning cannot be properly captured by e.g. n&s features.)

Are domains = cognitive models? Well, some seem to think so. A useful distinction, I think, might be to see cognitive models as more static, organising structures (that may also vary according to culture), whereas domains are complex, changing, context-sensitive bundles of background knowledge that get activated and de-activated continuously during thinking/talking.

Gestalts (term from Gestalt psychology) - skeletal mental “images”; holistically perceived rather than analysed into components; not necessarily or only visual.

Image schemas – simple, basic cognitive structures which are derived from our concrete, everyday interaction with the world (or possibly innate). These are preconceptual (not lexemes) and no doubt shared by all higher mammals: UP/DOWN, IN/OUT, CONTAINMENT, TRANSITIVE EVENT, CONTACT, FIGURE/BACKGROUND, etc.

[Hypothesised (G. Lakoff, M. Johnson, M Turner) to constitute the basis of conceptual metaphorical mappings/projections (blends) – we’ll return to this in Ch. 11.]

Chapter 8 Paradigmatic sense relations – inclusion and identity

Sense relations

– the semantic similarities and differences holding between lexical items. (The more regular and the closer they are, the more interesting.)

Criteria: recurrence (in the vocabulary), discrimination (e.g. *is a type of...*), lexicalisability (the relation is lexicalised and/or easy to grasp).

- **Paradigmatic** – reflect semantic *choices* available (within a lexical field): a bottle of ___ (*milk/juice/beer*, etc)
- **Syntagmatic** – hold between items *close to each other* in a sentence: *dry sherry/*wet sherry*. They may be good or odd either for pragmatic, semantic or idiomatic reasons: *red/*transparent wine* – transparent wine is not produced, but maybe could be – pragm., *good/*naughty wine* – only cognate beings can be naughty – sem., *dry/*wet wine* – although literally, all wine is wet, and none dry, *dry* is used in an extended sense to describe wine that isn't sweet, not the substance left in a wine spot on clothing – idiom.
- **Derivational** – “word families”: *run* (intransitive vb.), *run* (transitive vb.), a *run* (n.), *running* (the activity – mass noun), *runner* (n.), *runner-up* (n.), *also-ran* (n.)

Meaning inclusion

Hyponymy: meaning inclusion (prototypically taxonomic, “type-of” relations)

_____ *fruit* _____ <superordinate, or hyperonym

apple banana orange <(co-)hyponyms

Tests: _____ -s and other _____ -s. ; A _____ is a _____. (works with all hyponymic relations);
_____ is a type/kind of _____. (works with taxonomic relations).

Meronymy: part-whole relations

_____ *arm* _____ <holonym

hand elbow shoulder <(co-)meronyms (sometimes ‘partonyms’)

Tests: A _____ is a part of a _____. ; A _____ has a _____. or A _____ has _____ -s.

Aspects: is the part

- a) necessary;
- b) integral;
- c) discrete;
- d) functionally motivated;
- e) congruent (range, phase, type)?

Synonymy – “meaning identity”

Absolute synonymy – requires the possibility of substituting one word for another in *any conceivable context* without the least change of meaning (including style, register, attitude, etc). Probably doesn't exist!

Propositional synonymy – substitution of terms entails the **same truth conditions** :

She plays the violin > *She plays the fiddle*

(never mind style or associative meaning; *violin* and *fiddle* can refer to the same object).

Near-synonymy – terms can be paraphrased (explained in words) the same way, but may not be felicitously used interchangeably in some contexts: *a pretty woman/a handsome woman* – both are GOOD-LOOKING, but probably not in the same sense!; a *?pretty man/a handsome man* – *pretty* and *man* don't seem to go too well together...

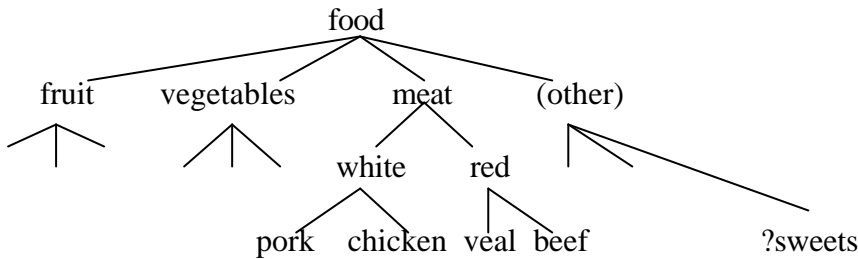
Differences in meaning among synonyms must be *backgrounded*. They include:

- adjacent position on scale of degree: *weep* - *sob* – *cry*
- aspects: *calm* (state) / *placid* (character, disposition)
- slight differences in prototypical meaning: *brave* (physical) / *courageous* (moral)

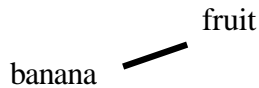
Chapter 9 Paradigmatic sense relations – exclusion and opposition

Incompatibility and co-taxonymy

- **Taxonomy**: a whole system of kinds and sub-kinds:



- **Taxonomy**: the relation between a (typically natural) kind and a sub-kind included in it:



- **Co-taxonymy**: the relation between two or more kinds on the same level:



In a hyponymy, co-hyponyms are typically **incompatible**; i.e. they have a relation of **exclusion**:

- 1) “extensional” exclusion – possible referents (works best with co-taxonyms):
a dog is not a cat is not a mouse is not a horse, etc. (the classes share no members)
- 2) “intensional” exclusion – aspects of meaning (works best with other co-hyponym types):
conflicting attributes – *mare FEMALE – stallion MALE*

Some co-taxonyms are not *logically* incompatible in terms of extension – just prototypically:
housewife – solicitor (could refer to the same person), *nurse – rugby player*

- **Meronymy**: a system of wholes and parts (and subparts, etc.)
- **Meronymy**: the relation between a whole (holonym) and a part of it (meronym):
arm – hand hand - finger
- **Co-meronymy**: a relation of exclusion between parts: *upper arm – lower arm*.
- There is often **vagueness** within meronomies: e.g., is *wrist* a meronym of *hand* or *lower arm*? (different languages have different “opinions”)

Opposites

– are, prototypically, **inherently** and **obviously binary**: *yesterday/tomorrow, long/short*.

Types of opposites:

- **Complementaries**: “true”, inherent binarity: *dead/alive, true/false, on/off*
- **Antipodals**: extremes (along some scale) – *black/white, top/bottom*

- **Antonymy** – graded/relative opposites that can be inflected
 - **Polar antonyms** (*long/short*): gradable – *longer, not very long*; incompatible, but not complementary: *neither short nor long*; one term is **marked** (*short*), the other neutral (*long*) in most contexts: *how long is it?* vs. *how short is it?*; *Length/?shortness: 1 foot.*
 - **Equipollent antonyms** (*hot/cold*): neither term is neutral – *hotter* presupposes *hot*, *colder* presupposes *cold* (cf. *longer*: doesn't presuppose *long*): *This place is cold, but it's less cold/*hotter than Antarctica.* (Cf. polar: *This film is long, but it's shorter than Ben Hur.* / *This film is short, but it's longer than a commercial.*)
 - **Overlapping antonyms** (*good/bad*): similar to polar antonyms (one member marked – always the negative one), but things that are inherently of the negative kind cannot be compared using the neutral term: *The earthquake was bad, but less bad/*better than last year's.*
- **Reversives**: verbs that designate movement in opposite directions: *rise/fall, tie/untie.*
- **Converses**: complementary pairs that (typically) exhibit a difference in point-of-view: *above/below* (x ABOVE y => y BELOW x), *buy/sell* (x BUY y from z => z SELL y to x), *husband/wife* (x be y's HUSBAND => y be x's WIFE)

Markedness: in pairs of opposites, if one member (for a variety of reasons) is more restricted in its use, less likely to occur in a context, or carries an element that creates a contrast, it will “stand out” (psychologically); it is then said to be **marked**.

- Morphological: *possible/impossible, married/unmarried, lion/lioness*
- Distributional: *long – short; ten feet long – *ten feet short; how long? – ?how short?* (*long* can be used in many more constructions than *short*)
- Semantic: *There are lions in Africa* (unmarked: sex-neutral); *a lion and two lionesses* (*lion* is marked when it means MALE LION). *How short is it?* (marked; presupposes ‘substantial lack of extension’) / *How long is it* (neutral; can equally well be relatively long or short)

Polarity: positive or negative.

- Morphological (negative affix): *likely/unlikely*
- Logical: the negative member of a pair creates **reversal of sense**
 - She succeeded in winning* > *She won* (+ plus + = +)
 - She failed to win* > *She lost* (- plus + = -)
 - She succeeded in losing* > *She lost* (+ plus - = -)
 - She failed to lose* > *She...won!* (Two negatives make a positive)

Fail and *lose* are negatives, because together they cause reversal of polarity.

- Privative: the positive term is associated with the **presence of something salient**, the negative with its absence: *alive/dead* (presence/absence of LIFE), *heavy(+)/light(-)* (p/a of WEIGHT), *married/unmarried* (p/a of SPOUSE).
- Evaluative: the positive term has “favourable connotations”: *good/bad* [although *bad* is positive in the slang sense: *he's a baaad dude*], *clean/dirty, safe/dangerous*

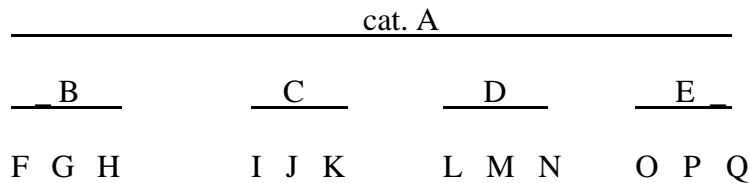
Hierarchy of domination for polarity:

EVALUATIVE dominates PRIVATIVE (*clean/dirty*), PRIVATIVE dominates LOGICAL (*far/near*) pol.

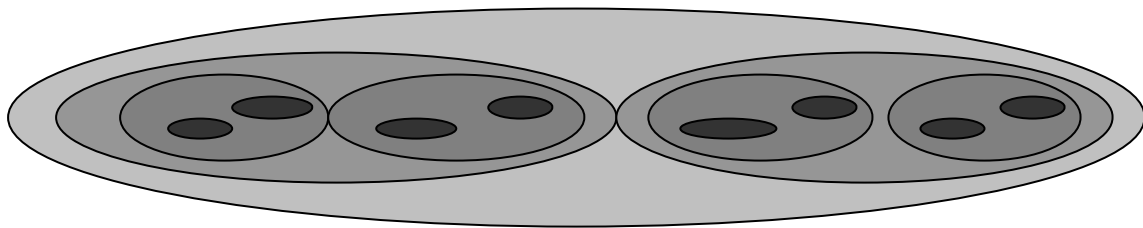
Chapter 10 Word fields

(Branching) “Hierarchies”

Hierarchy is really a metaphor: the DOMINANCE relation maps onto the INCLUSION relation, which itself maps onto the idea of shared attributes making up a FAMILY of categories.



Hierarchical view of categories (the more general “dominates” the more specific)



Inclusion view of categories (lighter: more general/inclusive; darker: more specific/included)

A is said to **include** B, C, D, E => A is the **hyperonym**/superordinate of B, C, D, E.

B includes F, G, H => B is the hyperonym of F, G, H. (etc.)

B, C, D, E **instantiate** (exemplify) A => B, C, D, E are **hyponyms**/subordinates of A
 I, J, K instantiate C => I, J, K are hyponyms of C (etc.)

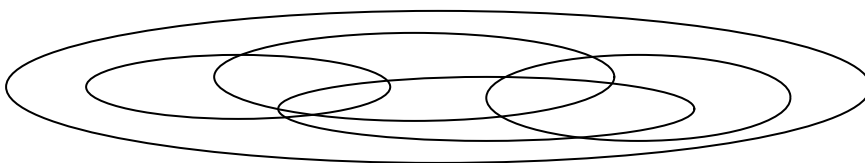
F, G, and H are **co-hyponyms**; so are L, M, N; so are B, C, D, E (etc.); they are *mutually exclusive* categories (well, prototypically) – a relation of **DIFFERENTIATION** holds between them.

If the relationship between co-hyponyms is such that they can be said to be *different kinds of* in respect to their common hyperonym, they may, more specifically, be called (co-)**taxonyms**.

Using the TREE metaphor:

Scientific taxonomies can be viewed as neatly “pruned”, well-ordered systems of non-crossing **branches** and clearly defined **nodes** (= branching points) – although they, too, may need revision now and then...

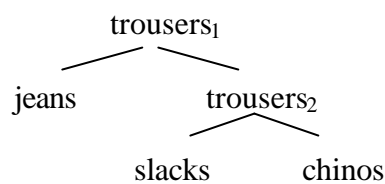
Conversely, “practical” conceptual systems (incl. taxonomies), in people’s minds, not only vary a great deal (individually, socially, culturally, with age) – they are also not “neat” (more like shrubbery than like an orchard!) and not static, but constantly negotiated, revised and adapted to the discourse situation (albeit more and less so).



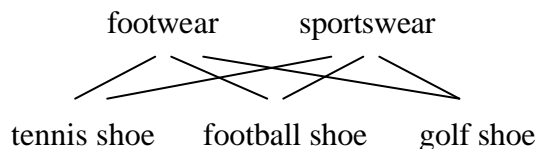
In technical/scientific taxonomies, the levels in a hierarchy have the *same status*. ‘Superordinate/hyperonym’ and ‘subordinate/hyponym’ are *relative* terms; their reference depends on point of view.

In cognitive semantics, psychological status and usage frequency are of interest, so the scholars look for **distinctive properties** of the different levels. Psychologists have found that a level “in the middle”, the **basic** (sometimes called “generic”) **level** shows the richest sets of properties, and therefore has an especially prominent cognitive status (see above [p 6](#)). The other levels are considered secondary, since they tend to draw on the psychological salience and primary nature of the basic level; this is sometimes called **parasitic categorisation**.

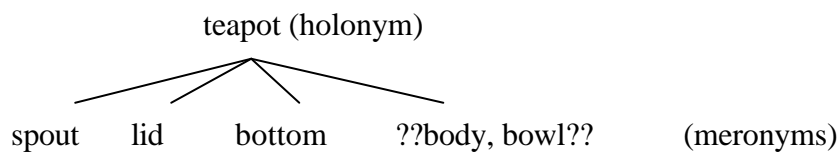
“**Common-sense**” hierarchies seldom have more than four levels and may be incomplete in the sense that not all nodes have a “name” (although you can often make one up: *socks* are UNDERWEAR, *coats* are OUTDOOR CLOTHES; *shirts* are ... NEUTRALWEAR?!); and sometimes two senses with “the same name” exist at different levels (**autohyponymy**; see fig. below): *jeans* are *trousers₁*; but *trousers₂* are *trousers₁-that-aren’t-jeans!*



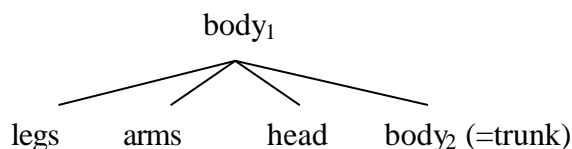
Other “untidy” phenomena in common-sense hierarchies include **crossing branches** and **multiple superordinates** (e.g. when we look at the same things from different perspectives):



In meronomic hierarchies (e.g. *body* > *leg* > *foot* > *toe* > *toenail*; *car* > *wheel* > *tyre* > *valve*) there is usually no obvious basic level, and it’s more difficult to see correspondences between different domains (are *wheel* > *tyre* on the same levels as *hand* > *finger*?). Similarly, some “nodes” may be unnamed:



and there may be **automeronymy** (a wider and a more narrow sense of one lexeme):



Just as different languages divide up reality differently in taxonomic hierarchies, meronomies may be different (usually just slightly); cf. Fr. *joue* (*cheek*) > *pommette* (FACIAL AREA AROUND THE CHEEK BONE); Eng. *cheek* > ? (no Eng. equivalent). Sw. *nacke* is given in dictionaries as *nape* (*of the neck*), but *nape* is not equivalent (esp. in terms of frequency of use and style).

Chapter 11 Extensions of meaning

Literal and non-literal (figurative) meaning

Literal: *The tennis balls popped out of the machine.*

Figurative: *He was so surprised that his eyes nearly popped out of their sockets.*

Most meanings tend to be understood as either literal or non-literal, but there are many borderline cases. Looking at language more systematically, it is found that many apparently literal meanings are nevertheless based on metaphorical patterns of thinking, e.g. *What's up? I'm feeling down*, to take a simple example. In fact, some scholars argue that virtually all language has its roots in metaphorical, etc., processes, whether it “feels” figurative or not at a particular point in time. This is due to human conceptualisation being rooted in the ability to abstract and generalise by projection – “thinking in figures”, they claim. (Some scholars still reject metaphor, etc., as being a marginal part of language – “mere ornaments”, but they are becoming progressively fewer.)

- There is no absolute correspondence between degree of figurativeness in a word-sense and whether the sense is *historically* an early or a late one.
- Nor is it necessarily the case that the literal meaning is more *frequently* occurring.
- The literal sense of a word usually coincides with the **default reading** - the first sense that comes to mind in the absence of contextual clues (e.g. *see* – to perceive by vision – although the UNDERSTAND sense is more frequently occurring). But some words have literal and non-literal senses that are equally good “default” candidates (*expire*). Besides, words are never really used out of context.
- It is sometimes possible to tell which direction a semantic extension must have taken: when one sense is clearly more *concrete* in the sense “more basically associated with human experience”, that is likely the literal sense; e.g. *see*, to have a visual experience, is more concrete than *see*, to comprehend. However, with a word such as *expire*, ‘to die’ or ‘to cease to be valid’, neither sense is a better candidate for literalness. Historically, another sense, ‘to breathe out’, is the source of both the others, but synchronically, it is just another, not obviously more basic, sense.

Figurative extensions that no longer feel figurative are said to be **naturalised**:
to fall in love (metaphor), *the kettle is boiling* (metonymy), *a superficial remark*

Others are conventional but retain a feeling of figurativeness – they’re **established**:
to swallow a story (*hook, line and sinker*), *she's a couch potato*, *they have many mouths to feed*

Nonce readings are made up metaphors and metonymies, often used for rhetorical effect. In a sense, they are the most interesting figurative expressions, because they require one to draw on previously established patterns of extension to be comprehended; this suggests that figurative expression – conventional imagery – is not “mere decoration”, but may involve important general patterns and strategies of conceptualisation.

The intense radiation from her emerald eyes brought his blood to a boil. (Awful, I know!)

Cf. the relatively colloquial *He made her melt.* / *She melted him.* / *His look melted her/made her (heart) melt.*

Metaphor (literally, “transfer”)

Classical (**substitution view**):

‘the use of a word or expression to mean something different from its literal meaning; metaphors are deviant; metaphors can be perfectly paraphrased by a literal expression.’
Problem: why would anyone use metaphors? just “sloppy language/thinking”? no system?

I.A. Richards (1965): **vehicle** (a.k.a. **source**) – the metaphorical phrase; **tenor** (a.k.a. **target**): the metaphorical meaning; **ground** (cognitive model?) – common elements, the basis for the extension. Drew attention to the fact that there is **meaning interaction** (what Turner/Fauconnier now call *conceptual blending*) and that there must be some systematicity in metaphors.

Haas (1960s; **comparison view**): ‘words are semantic fields, with core and periphery; when meanings “clash” in a metaphor, a new semantic field, with a new core, is created. Metaphors are essentially **similies**: The *foot of a mountain* is the part which is *like* a foot’ (but cf. ?The *head of the department* is like a head?; this is clearly too strong a claim).

Max Black (philosopher, 1970s): ‘projection of associative implications’; the metaphor (source) imposes implications analogous to those of the thing being “metaphorised” (the target); e.g.:

MARRIAGE – A GAME (**correspondences**: struggle/contest, two opponents/contestants, rewards are gained at the other’s expense/one contestant wins at the expense of the other).

Sperber/Wilson (1986) – Relevance Theory: metaphor is ‘loose talk’; interpreters strive to maximise contextual relevance with as little effort as possible by looking for resemblances. (?)

Lakoff and followers (1980s, 90s): metaphors are **conceptual structures**, essential in human cognition, which explains why novel metaphorical expressions can be understood immediately; correspondences are *partial* and depend on **cultural models**; rather than source and target, Lakoff speaks of source/target **domains** in order to point out the importance of wider conceptual networks in metaphor formation; **“mapping”** goes one way only:

(more) concrete > (more) abstract:

He was so angry he nearly exploded/blew his top. You could see steam coming out of his ears.

ANGER IS HEAT; BODY IS CONTAINER;

HEAT CAUSES RISE IN PRESSURE corresponds to ANGER GIVES SENSATION OF PRESSURE

According to Lakoff & Johnson, mappings may be based on **image schemas** – simple, pre-conceptual relations that don’t even require language ability: BALANCE, CONTAINMENT, TRANSITIVE EVENT, CONTACT, etc. (Lakoff et al’s ideas are part of a comprehensive philosophical theory of mind, based on evidence from research in various cognitive sciences.)

Relatives of metaphor

include

- **Personifications**; e.g., Death = *the Grim Reaper* (DYING IS BEING HARVESTED, etc.)
- **Proverbs**: a specific event represents/applies metaphorically to other (more abstract) events or states with a similar (image-schematic) structure: *A nod is as good as a wink to a blind bat.*

Metonymy

is sometimes difficult to distinguish from metaphor, but can be described as ‘a relation of contiguity, (direct) association’. Cognitivists speak of ‘mapping within the same domain’ – in contrast to metaphor, which is ‘mapping across domains (an [intentionally?] vague definition, since domains can have any degree of complexity, and figurative expressions, in “linking” domains, tend to create new, more complex, ones). In fact, some borderline cases are referred to as “metaphtonymy”!

“Classic” example:

[in café – one waitress to another:] *The ham sandwich wants his coffee now.*

(*ham sandwich* here stands metonymically for a person having ordered/eaten a ham sandwich)

Conventional patterns of metonymy:

CONTAINER FOR CONTAINED:

The car in front decided to stop in the middle of the road. (car for driver)

WHOLE FOR PART/PART FOR WHOLE (sometimes PART FOR PART):

Fill ‘er up! (car for petrol tank) / *This company needs some bright new minds* (for people).

Extensions:

POSSESSOR FOR POSSESSED/ATTRIBUTE: *Is Jill Smith in the phone book?*(person for “data”)

REPRESENTED FOR REPRESENTATIVE: *Sweden beat Russia 3-0.* (nation for team)

PLACE FOR INSTITUTION: *The Pentagon denies rumours of imminent attacks.*

Why metonymy?

Possible reasons:

- brevity/cognitive economy – the expression gets shorter/requires less effort;
- rhetorical effect (in “inventive” metonymies);
- accessibility – the target is easier to access via the source, because the source is more *salient* (“stands out”)

Ex.: *John patted the dog* (logically: *John’s hand patted the dog’s ?back/?head*)

- the wholes are more accessible than their parts (and the expression gets shorter).

Chapter 12 Syntagmatic relations

Normal and abnormal co-occurrence

Two types of interaction between meaningful elements:

- **Discourse interaction** – the utterance is stylistically odd or doesn't make sense against the background of any cultural/cognitive model (doesn't "fit" the world as we know it):

?! *My daffodils are pushing up the daisies* (= *My daffodils are dead*).

? *After the wedding was over, people were throwing rice crisps over the threesome.*

But there is no "clash" between adjacent elements.

- **Syntagmatic interaction** – there is *semantic* clash between *adjacent elements* or phrases:

? *The city was flattered by his miaow.*

? *Colourless green ideas sleep furiously.* (Chomsky)

Note however the importance of context for determining semantic clash; *colourless green ideas* may be a figurative characterisation of an uninspired Greenpeace seminar! (There is perhaps less hope of making sense of *sleep furiously*...)

Types of (syntagmatic) abnormality

Semantic clash – *no* context can resolve the clash in meaning between elements.

Co-occurrence preferences ("restrictions") – degree to which semantic elements of one expression sanction co-occurrence with another expression.

Clashes

- from **collocational** preferences – style, register clashes: *My aspidistra has popped off.*
Result: **inappropriateness**.
- from **selectional** preferences – consequence of propositional content: *The rain fell into the sky.* – **paradox**; *The giant rock hitchhiked by dragonfly.* – **incongruity**.

Pleonasm – one element is **redundant**, because it adds information already given by the other element: *I saw the bee with my eyes.*

[Repetition of the same element does not cause pleonasm, but either intensifies: *very, very good*; *I ain't got nothing*; or causes cancellation: *I don't not want it.* = I want it.]

- **philonyms** – go together normally: *I saw; saw you; red sofa; sleep well*
- **xenonyms** – cause clash: *sofa saw; sofa red; heartfelt sleep; hear fervently*
- **tautonims** – produce pleonasm: *blue bluebottle; hear with ears; heavy lead (Pb)*

A hyperonym of a philonym may or may not be a philonym:

The dog barked > *The animal barked.* – yes

But: *a former girl-friend* > *a former girl/woman* – no!; or *a former friend* – maybe

This is because the “philonymy” might apply only to part of the meaning of a word (e.g. *girl-friend*: roughly, HUMAN + FEMALE + INTIMATE RELATION; *former* only modifies the last attribute).

Inappropriateness clashes can be “fixed” by replacing one of the xenonyms with a suitable propositional synonym:

?*My amaryllis has passed on* > *My amaryllis has died*.

Paradox can be resolved by substituting an immediate hyperonym:

??*The elephant barked* > *The elephant made a noise*.

Incongruity can’t be cured – since there’s no way of knowing what (literally) was meant!

Pleonasm can be “cured” by replacing one of the tautonyms with a hyponym: *male *uncle* > macho *uncle*; or the other with a hyperonym: **male* uncle > *male* relation

Syntagmatic constraints are usually **directional** – one of the items does the selecting.

- Selector (predicates – adjectives, verbs): *hard* (*match/journey/exam*)
- Selectee (arguments – nouns, noun phrases): (*important/*yellow/*tall*) *game*

Why? Selectees refer to (often specific) things, selectors add general properties/descriptions.

Semantic head

is the element of a construction that *governs* the semantic relation to the other element (the **dependant**). The dependant brings information not present in the head to the combination – not the other way around. Ex:

A table[head] – a small[dependant] table[head]; kicked[head] with her left foot[dependant]

This is relevant in **pleonastic expressions**: *kicked[head] with his foot[dep.]*.

The dependant *with his foot* should add info not present in the head, but fails to do so.

I’m not that fond of this definition, because verbs tend to be considered heads, yet they are dependent on their arguments: [Arg1] *saw* [Arg2] – *Bill saw a lion*; **The toothbrush saw a noise*.

Some co-occurrence restrictions are difficult to explain other than by appealing to cognitive models, prototype effects, figurative usage patterns and collocational patterns (which may be very idiomatic).

Co-occurrence (collocational) patterns

Affinity = collocational strength

– how likely it is (statistically) for two expressions to occur together.

Factors:

- **extralinguistic** – how the world is “made up” (partly *per se* and partly due to culture) influences choice of which concepts go together: *old* and *man* collocate much more strongly than *old* and *fly*.
- **stereotypic** – standardised ways of thinking-therefore-saying something: culturally dependent: *dear friend*, *pretty girl*, *handsome man*
- **clichés** – arbitrary collocations with extra strength (where others would work as well and convey the same meaning/attitude): *intense heat* (cf. *strong/extreme heat*), *gross negligence* (cf. *great negligence* – probably just as “good”, but less frequent)
- **“arbitrary” collocational restrictions** – not (obviously) dependent on reality, culture, or routines due to frequent use: *heavy rain* (cf. **high rain*), *high wind* (cf. *?heavy wind*). [My guess would be that there are (at least partially) structured metaphorical complexes lurking in the background, which motivate these last, seemingly inexplicable, collocations.]

13 Lexical decomposition

Can the meaning of a word be split up into “semantic atoms” – smallest units of meaning out of which all other meanings are built? This has long been a linguistic endeavour. However, a lot of linguistic semantics has been based on the models of meaning used in logic and analytic philosophy, where “words-to-world” correspondences are in focus and psychological plausibility of conceptualisation is not a central concern.

Yet, most cognitive linguists do use attributes when discussing word meaning, but few of them would say that a limited number of attributes can fully capture the meaning of all words. This seems to be the case especially with natural categories (such as *red oak*, *cocker spaniel*) and many abstract categories (say *love*, *justice*), which can probably only be fully understood through experience, no matter how many attributes you list. (Moreover, these “semantic atoms” themselves constitute unanalysed bits of meaning – what to do with that? leave it to psycho-/neurolinguistics? and how do we motivate our choice of some “atoms” above others?)

Another problem in many categories is that the number of attributes cannot be considered fixed, but is a “statistical variable”. Yet, most words seem to “contain” components of meaning which can be captured by (necessary) attributes, or “semantic features”, and this can be a useful device for describing and contrasting meanings.

Motivations for lexical decomposition

Partial similarities

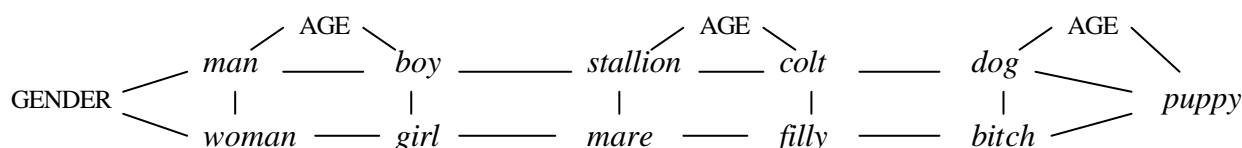
Some words have a lot in common and only one “distinctive feature” that separates them:

stallion MALE/*mare* FEMALE, both: HORSE;

light LESS THAN AVERAGE/*heavy* MORE THAN AVERAGE, both: WEIGHT

Correlations

The distinctive components (e.g. AGE, GENDER) are distributed independently of each other, within several different categories:



Discontinuities

There's functional independence in different portions of meaning in a word, implying a discontinuity; e.g., *almost* may modify either the CAUSE or the DIE aspect of *kill*:

almost kill = almost [CAUSE TO DIE] or: CAUSE [almost [TO DIE]].

not a ram implies (though it doesn't logically entail) *a ewe*, not *not a sheep*;

the GENDER component is distinct from the SPECIES component, which is untouched.

Simplex/complex parallels

False = *not true*, so *false* (as well as *untrue*) can be analysed as [NOT]+[VERACIOUS] (note that there is no **unfalse* as a synonym of *true*, so *true* seems to be simpler than *false*).

Aims of lexical decomposition

Reduction

Hjelmslev (40-50s) argued that all meanings could be analysed into a restricted vocabulary of small, basic units, like just like phonemes can be analysed as combinations of a small set of **distinctive features**. This significantly reduces the number of components in a large-scale semantic analysis.

Many dictionaries are based on this idea of using a restricted basic vocabulary in definitions.

‘Commutation’ (substitution of one element for another):

bit/pit, bin/bit, pin/pit – phonemic difference; but [pin]/[p^hin] – no: still PIN (allophones).

Similarly,

[HORSE]+[MALE]/[HORSE]+[FEMALE] – meaning difference (*stallion/mare*); but

[HORSE]+[BROWN] – no: still *horse*. BROWN is not a “distinctive feature” of HORSE (albeit a rather typical one).

Wierzbicka (80-90s) has suggested a radically reduced list (inspired by Leibniz’ *monads*) of indispensable, universal semantic primitives, which in combination are supposed to be able to express all other meanings. She insists that they must be concrete and intuitive, not abstract.

Lexical contrasts and similarities (Pottier, probably – Cruse never says!)

A minimal semantic component is the smallest possible difference between two words; *all* components must create a *contrast* in meaning (e.g. *chair* contrasts minimally with *stool* due to the attribute HAS BACK).

sofa: CONCRETE INANIMATE FURNITURE FOR SITTING FOR SEVERAL HAS BACK

The more shared attributes items have, the closer in meaning they are. This approach conveys more useful information than the reductionist approach, but still not enough to mirror (or aid) proper conceptualisation; e.g., for *sofa*: typical size, material, proportions, sitting experience, that most have arm rests, thick/soft upholstery, etc., are missing.

It is less economical as concerns the number of attributes required (at least one new one may be needed for each new word). It doesn’t do very well with natural categories; e.g. for *cow* the component BOVINE must be added, but BOVINE just means COW-, which isn’t very revealing, to say the least! ‘*A bull is a male cow-animal*’ is enlightening, but ‘*A cow is a cow-animal*’??

Lexical relations and entailments

A system of lexical decomposition must take into account the different ways in which semantic components (attributes/features...) **combine**: e.g. which are incompatible/mutually exclusive (called **antonymous n-tuples**); which entail which other components (inclusion in the form of hyponymy or meronymy), etc. This is a tricky business, and hasn’t been fully worked out.

Predicting Anomaly

Selectional restrictions (or **specifications**) are specifications that words must have for their combination to result in a “normal” (i.e., not anomalous) sentence. Ex:

?*My magnolias have expired.*

– is anomalous because *expire* (in the relevant sense) has the selectional specification <[OF HUMAN SUBJECT]>. Dictionaries sometimes specify selectional restrictions. A problem (of several): an utterance of a *literally* anomalous sentence may be meant *figuratively*, and, if thus understood, may not be “anomalous” at all (in its proper context – say you wanted to convey to the listener that your magnolias were like dear friends to you, and the loss is felt deeply ;-).

Discontinuities revisited

Briefly: discontinuities open a Pandora’s box of problems for componential analysis. E.g., some attributes associated with natural categories are almost endlessly variable with context, and will often affect interpretation.

[I’m skipping over some sections here. They’re not very interesting, I think.]

Alternatives to Lexical Decomposition

Componentiality seems to be a prominent aspect of the meaning of *some*, but far from all, words. This means that a purely linguistic semantic description may have to be restricted to *some* categories of words – and in fact, only to *some* of the meaning of these words. Thus, the “dream” of an all-embracing theory of meaning consisting of fixed, discrete components seems to be an impossibility.

Prototype theory and related “cognitive” ideas, while still in their infancy, may ultimately be important complements to componential analysis in lexical semantics. But going deeper into this would bring us (perhaps inescapably) into largely unexplored territories of cognitive science – (experimental) psycholinguistics, neurolinguistics, etc. – and that’s a whole other course!

- Morgan Lundberg
