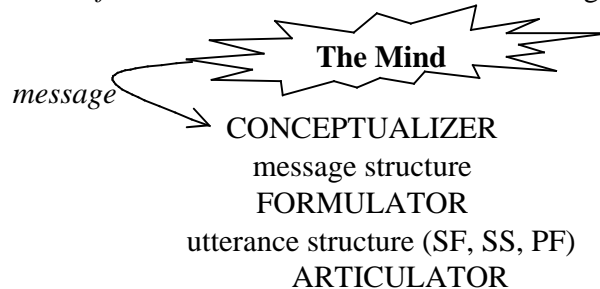


0. Prolegomena

1. a) *kit and caboodle*
- b) Semantic bootstrapping: Motherese and one-word utterances
- c) Compositionality: homeworks

1. Bierwisch and Schreuder

2. *The problem of lexical access*: Three levels of meaning



The Mind: perceptual, motor, emotional, conceptual, and other info.
 (p. 40: "the social, situational and regional conditions of its use", "connotations",
 p. 44, "the input to [the formulator] must come in integrated representations drawing on
 conceptual structure, encyclopedic and situational knowledge").

Conceptual Structure (CS): the output of the CONCEPTUALIZER. It is
 "language-independent, and based on general principles of conceptual organization,
 including common-sense ontology, conceptualization of space and time, general
 conditions underlying encyclopedic knowledge and systems of belief."

Semantic Form: The product of the FORMULATOR, which picks lexical items
 and submits them to a combinatoric process (syntax) to get bigger things. For anything
 from word-size up to sentence-size. Made up of a quadruple, (SF, GF, AS, PF) of

(a) an array of conceptual primitives in a certain relationship, decompositional,
 very Jackendovian (what I'll henceforth refer to as Semantic Form proper).

(b) some grammatical information about the constituent involved (e.g. its
 category, or structure) (GF)

(c) information about its *argument structure* (AS) (presumably, its type: <e>; <t>;
 <e,t>; <e, <e,t>>; <e, <e, <e,t>>>, although they allude also to theta-roles, and include a
 type P for "PATH")

(d) some phonological information about how to pronounce it. (PF)

3. The FORMULATOR's job is to match chunks of CS up with "words" in the
 lexicon, which then will combine according to the appropriate syntactic and phonological
 criteria to create an SS and a PF, as well as a (potentially non-compositional) SF. The
 FORMULATOR, in B&S's proposal, has two subparts,

(a) *Int*, which takes SFs and translates into CSs, using as a crucial ingredient in
 its mapping some *contextual information*, *C*.

(b) *Vbl*, which does the job the article is about: looking at CSs, picking out CS chunks that match up with the SFs of certain lexical items in the context at hand, and putting those lexical items together to match up to the overall message the CONCEPTUALIZER wants to get across.

(c) *Vbl* can tell that it's picked out the right lexical items by submitting them to *Int* and checking to be sure that the CS that they end up producing in a given context is the one that the CONCEPTUALIZER has come up with as its communicandum.

4. B&S's Lexicon

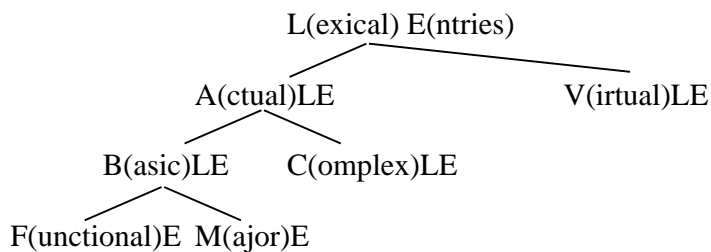
Three sample lexical entries (the quadruple (PF, GF, AS, SF)) for *enter*, *go*, *into*:

- (a) /enter/ [+V, -N] x y [y DO [MOVE y]: FIN[y LOC IN x]]
 PF GF AS SF
- (b) /go/ [+V, -N] P y [y DO [MOVE y]: [P y]]
- (c) /into/ [-V, -N] x z [FIN[z LOC IN x]]

After composition of, e.g., *go* with *into*, you get the quadruple below:

- (d) /go into/ ?VP? ?[+V,-N]? x y [y DO [MOVE y]: [FIN[y LOC IN x]]]

5. Not just morphemes, also complex words in the lexicon. These are the input to the *Int* function, or the output of the *Vbl* function:



6. "A systematic distinction between linguistic and extralinguistic determinants of meaning must be made." p. 30

Some distinctions between CS and SS:

- a. *John*: SS = [+referential] [+male]
 CS = 1. Lives across the street, medium tall, drives a Camaro...
 = 2. Post office worker, over-friendly, thick glasses...
 = 3. Kid in grade 3 class, got into a fight at recess, moved...

- b. *leave*: AS, SS = (x) y [DO y [MOVE y] : FIN NEG[LOC IN (x)]
 CS = 1. Physically moves away from/out of a real-world location
 2. Dissociates oneself from an institution/group

"John left the institute" 1. *an hour ago* 2. *a year ago*

- c. *coffee*: AS x [THING x: [-COUNT]]
 CS = 1. Usually hot, stimulating, morning, contains caffeine..
 =2. Roasted and sometimes ground beans of a certain plant
 =3. The plant whose beans are used to make coffee

"The coffee is to your left" 1. *In a hotel.* 2. *In a supermarket* 3. *On a farm*

- d. *closed* AS, SS = y [NOT [OPEN y]]
 CS = 1. access to enclosed space is blocked by an item
 conventionally used for such blocking
 = 2. a business is no longer engaging in transaction with
 customers

"The shop is closed". 1. *Its door is shut* 2. *Employee turning you away.*

7. Some speculations about CS and its relation to SS:

- a. SSs are "mini-CSs". CSs use all the same primitives that SSs do, plus a bunch that aren't linguistically relevant. (Essentially Jackendoff's view). Makes the job of *Int* or *Vbl* much simpler, especially if every LE has a unique SS.
 b. CSs use different primitives and are and more complete than SSs, but preserve SS relationships in some relevant way (need yet another mapping theory).
 c. The *Int* (or *Vbl*) function translates SSs into CSs (or vice versa), and adds (subtracts) the relevant contextual information that allows the matching of a particular CS to a lexeme/structure.

8. Many to Many mappings: above, one SS, multiple CSs.
 Here, one CS, multiple SSs (synonymy)

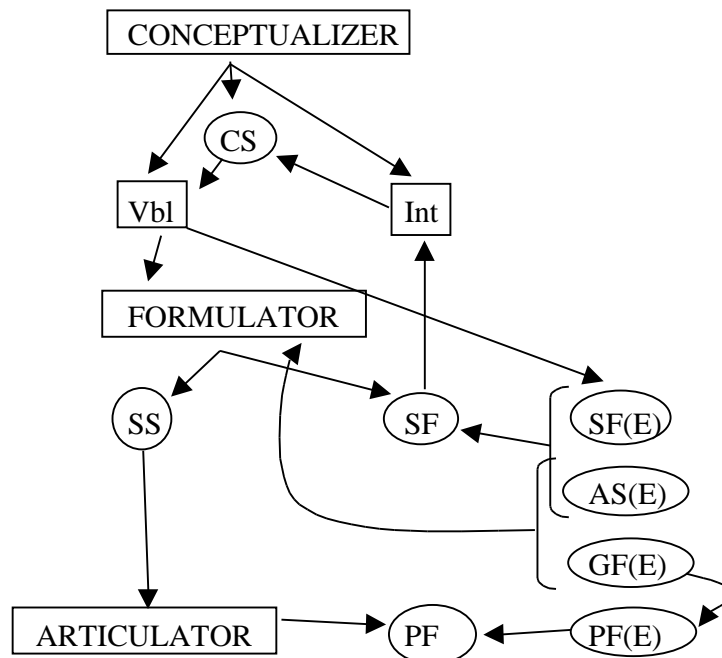
- a. One CS, one SS, multiple lexicalizations/chunkings
 John entered the garden / John went into the garden.
 b. One CS, multiple equivalent SSs:
 John is shorter than Bill / Bill is taller than John / John is not as tall as Bill /
 ??Bill is not as short as John.
 Draw a square around the box/ Draw a box around the square.
 c. One CS, one SS, multiple truly synonymous "words"
someone/somebody, everyone/everybody.

9. Lexical relations (meaning postulates vs. entailments)
- A is synonymous with B if A and B have the same meaning
 - A is a hyponym of B if the meaning of A is more specific than the meaning of B (poodle, dog).
 - A is a hypernym of B if B is a hyponym of A. (dog, poodle)
 - A is an antonym of B if the core meaning of A contrasts with the core meaning of B.
 - A is semantically ambiguous if A has more than one meaning.

10. *Some other conclusions*

a. Connectionist frameworks don't cut it. Languages are rule-based, symbol-manipulating systems, and can't be represented connectionistically. Connectionist frameworks that "build rules in" are simply an implementation of a rule-based model, no better or worse than any other model.

- b. B&S's "schema of the lexicon" (read: grammar)



- c. Only conceptualized information can be input to the formulator and to lexical access.
rules out "direct lexical access by means of perceptual information"
- Some SFs are pre-formed and used by the formulator, e.g. in conversation.
 - "Chunking" explains lack of complexity effects, decomposition real
 - Decomposition real, hence some complexity effects.

g. Activation models are inadequate because of idioms
"Tabs seem to have *been kept* on Jane Fonda"
I *looked* the information *up* in the dictionary.

11. *Problems with the discussion*

A: Assumption that WORD is a meaningful linguistic unit, c.f. Marantz's anti-lexicalist rant.

- a) *unexpectedness, paperclip production system, destroyed*
- b) *kit and caboodle, tabs were kept, look up*
- c) ANY pronominal argument language, Noun Inc. language, agglutinating, polysynthetic language and
- d) in contrast with English, ANY isolating language

B: Related to A: including word-formation processes in the "lexicon" model.

C: Required reliance on mapping principles as a subpart of the FORMULATOR, potential for dissociation between syntactic structure and semantic structure due to this insulation of one from the other.

"The correspondence between the semantic and phonetic form of complex combinations of lexical items is determined by the morpho-syntactic structure of those combinations."

D: Additional set of mapping principles needed in the form of *Int* and *Vbl* to get one from SS to CS

E. Misguided attack on meaning holism

- a. meaning postulates necessary and bad
- b. "the conceptualizer would have to operate essentially in terms of lexical items, so that the real problem of lexical access is trivialized". That's sort of the *point* of atomism: the Language of Thought.

F. *Int* and *Vbl*, qua functions, seem to have entirely too much work to do. What about metaphor, poetry, innovative uses of existing BLEs in new contexts?

G. Associating *closed* or *leave* with two different conceptual structures in and of themselves seems entirely too strong. The difference, as pointed out extensively by Fodor, seems to reside in the potential realizations for *office* or *institute*, and hence not in any linguistically relevant way to the meaning of *leave*. If their point is that the CS of the whole statement "She left the institute" is distinct in different contexts, big deal.

H. "CS is language-independent", "SF is language dependent". Surely should be the other way around? Unless they mean *language-independent but speaker-dependent*. But the SF representations are supposed to be *speaker-independent*.

I: Thematic relations *and* SFs?

2 Kiparsky

Kiparsky is essentially noting, in great detail, that "John put paint on the wall" or "Sue put the horse in the corral" is not an adequate characterization of the meaning of "John painted the wall" or "Sue corralled the horse. Hence, he finds that the motivation for a H&K-style approach to lexical decomposition is thin.

1. (a) *Explosion in a paint factory:*
#The explosion painted the workers.
ok The explosion covered the workers with paint.
(b) *Artist dips his brush in a pot of paint:*
#Velasquez painted his brush.
ok The artist covered his brush with paint
2. (a) We put the dead horse in the corral
#We corralled the dead horse.
3. "There must be general principles that guide our acquisition and use of word meanings. They must be rich enough to tell us what a given denominal "putting" verb means, including not only whether the underlying noun denotes the thing put or the place where it is put, but also in what ways the verb can be extended to novel situations."
4. "[The B&S approach] formalizes the traditional assumption that the syntactic properties of lexical items are in large measure predictable from their meaning."
5. a. Denominal causative verbs refer to generically intentional activities.
b. Simple predicates refer to single events (and consequently simple causatives refer to direct causation).
6. *Not any activity of "causing to be covered with paint" is a painting activity.*
7. Conceptual knowledge is essential to the formation of lexical meaning.
8. "For H&K, a basic argument in favor of the analysis of word meaning as L-syntax is that it explains why the number of theta-roles is small... Any such limitations on Theta-roles can equally well be accounted for by the restricted number of basic semantic predicates in lexical decomposition."
9. Why isn't it possible to strand modifiers? Why can you double the incorporand?
 - a. We saddled her horse Western
 - b. We saddled her horse with a Western saddle.
10. Why not:
 - a. *I bushed the fertilizer
 - b. *I housed the coat of paint.

11. If an action is named after a thing, it involves a canonical use of the thing.
12.
 - a. Locatum verbs: putting x in y is a canonical use of x.
 - b. Location verbs: putting x in y is a canonical use of y.
13. Both location and locatum interpretations possible for some verbs:
 - a. *shelve* 1) to provide something with shelves
2) to put something on shelves.
 - b. *ice* 1) to put ice on something
2) to put something on ice
 - c. *index* 1) To provide something with an index
2) to put something on an index.
 - d. *string* 1) To put strings on
2) To put on strings
 - e. *tube* 1) To put tubes in something.
2) To put something into tubes.
15. Only the lowest ("most deeply embedded") Th-role can be "incorporated", i.e. expressed by the noun of a denominal verb.
16. There's a Location theta-structure (BE-IN) and a Locatum structure (HAVE-ON)
17. Semantic bleaching of locatums/locations:
 - to shelve a book on the windowsill
 - to land a hydroplane on water
 - to ditch a car in a vacant lot
 - to paint your chest with Vicks Vapo-Rub
 - to butter a piece of toast with margarine
 - to dust a pan with flour

Comparison to Instrumental denominal verbs, which H&K do not propose to treat with an incorporation structure:

18. #She taped the picture to the wall with pushpins.
He hammered the desk with his shoe
#We'll bicycle across France on our tricycles
Well string him up with a rope.
19. No stress shift for denominal verbs, compared to other noun/verb pairs:
 - a. to 'pattern, a 'pattern, to 'index, an 'index,
 - b. to pro'test, a 'protest, to per'mit, a 'permit
 - c. "Basic" verb stress pattern iambic: dis'cern, as'sert, ex'pect
20. *The lexicalization constraint*: A verb can inherently express at most one semantic role.

21. "Allowing internal predication in the P-projection, however, reproblematises the analysis of A-projection".

Because As can take complements: [angry at Dole], account of A-alternations goes away?

Syntactic nature of H&K's restriction on Adjs that they cannot project a specifier takes care of this, no?

22. Inherent agent-requirement of a "canonical use" controls transitivity alternations: (internal causation)

The paint splashed on the wall

**The paint smeared on the wall*

The plane landed

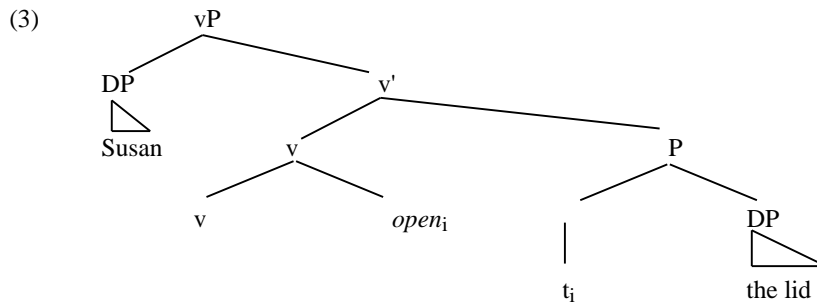
**The horse corralled.*

Hence, H&K wrong about the "internal specifier" restriction.

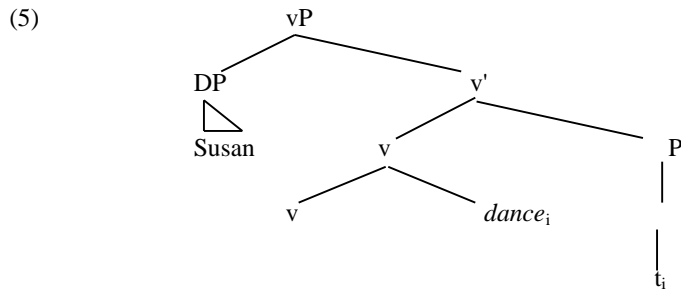
3. Harley 1999 and DM

- (1) a. Susan opened the lid / The lid opened.
 b. Susan broke the VCR / The VCR broke.
 c. Susan grew the tomatoes / The tomatoes grew.

- (2) a. #Susan's growth of tomatoes.
 b. The army's destruction of the city.



- (4) Susan opened the lid again.
 i. "again" P adjoined:
Susan opened the lid, which had been open before.
 ii. "again" vP adjoined:
Susan opened the lid, which she had done before.



(6)

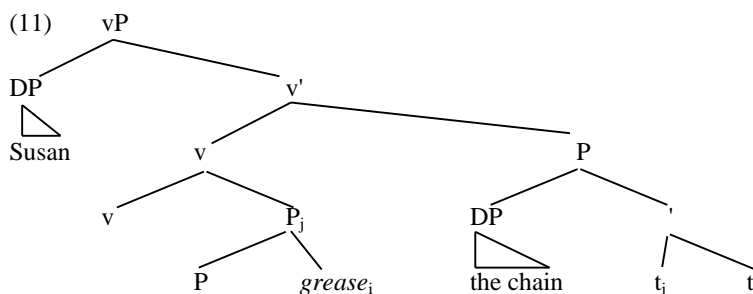
	Thing	Event
+bounded	apple	flash
-bounded	water	sleep

- (7)
- #Sue ate apples/candy in an hour.
Sue ate apples/candy for an hour.
 - Sue ate an apple/the candy in an hour.
#Sue ate an apple/the candy for an hour.

- (8)
- The mud caked in an hour/#for an hour.
 - The mare foaled in an hour/#for an hour.
 - Mary drooled #in an hour/for an hour.

- (9)
- Sue danced #in an hour/for an hour.
 - Sue slept #in an hour/for an hour.
 - Sue jumped in a flash/#for a minute.
 - Sue coughed in a flash/#for a minute.

- (10) *put* verbs:
 Location: bag, bank, bottle, box, cage, can, corral, crate, floor (opponent), garage, jail, kennel, package, pasture, pen, photograph, pocket, pot, shelve, ship (the oars), shoulder, tree.
 Locatum: bandage, bar, bell, blindfold, bread, butter, clothe, curtain, dress, fund, gas, grease, harness, hook, house, ink, oil, paint, pepper, powder, saddle, salt, seed, shoe, spice, water, word.



- (12)
- Mary saddled the horse in 5 minutes/#for 5 minutes.¹
 - John boxed the computer in an hour/#for an hour.
 - Sue blindfolded Billy in 2 minutes/#for 2 minutes.
 - The blacksmith shoed the horse in an hour/#for an hour.

¹ Of course, the "for 5 minutes" adverbial is felicitous if it's assumed to describe the end state, rather than the event of saddling; again, this is not the interpretation we're interested in here.

- (13) a. Susan watered the garden in an hour/for an hour.
 b. Bill greased the chain in 5 minutes/for five minutes.
 c. Jill painted the wall in an hour/for an hour.
 d. Adelaide buttered the bread in 2 minutes/for 2 minutes.
- (14) a. hit, kick, kiss, knock, pinch, rap...
 b. feel, touch, tickle, hold, clasp...
- (15) a. v + STATE, no specifier = BECOME
 b. v + STATE, specifier = CAUSE
 c. v + THING (specifier required) = MAKE
 d. v + EVENT (specifier required) = DO
- (16) a. shovel, brush, sponge, mop, rake...
 b. John shoveled the driveway in an hour/for an hour.
 c. Patty brushed the horse in an hour/for an hour.
 d. Jill raked the gravel in an hour/for an hour.
- (17) a. Susan fit the horse with a saddle in an hour/#for an hour.
 Bill sprayed the garden with water in an hour/for an hour.
 John fit Jill with a blindfold in a minute/#for a minute.
 b. Jill leveled the gravel with a rake in an hour/for an hour.
 Patty rubbed the horse with a brush in an hour/for an hour.
 John cleaned the floor with a mop in an hour/for an hour.
- (18) a. Susan fit the horse with saddles #in an hour/for an hour.
 b. John fit Jill with blindfolds #in an hour/for an hour.
- (19) a. ??Susan fit the horse quickly with a saddle.
 b. Jill leveled the gravel quickly with a rake.