Bare roots, conflation, and the Canonical Use Constraint

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Structure of talk

- Hale and Keyser's incorporated nominals
  - arguments for
    - morphological
    - semantic
      - modification
      - delimiation
  - arguments against: Kiparksy (1997)
- But (one) argument against applies to syntactic as well as lexical structures
- …could be an argument *for* a syntactic approach.

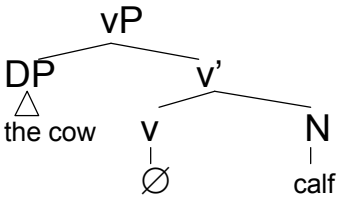
Decomposing denominal verbs

- Hale and Keyser (1993-2002)
- Some kinds of denominal verbs (verbs with (mostly) zero-derivation relations to nouns):
  - *pup, calve, foal, spawn, drool, bleed, sweat*
  - *shelve, box, corral, table, bag, cage, pocket*, *dock*
  - *butter, string, saddle, cover, water, clothe*
  - Also *hammer, fax, knife, vacuum, pen, tape, pin, nail*

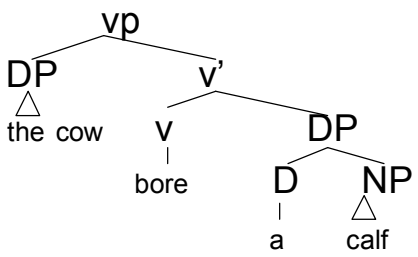
Decomposing denominal verbs

- Claim: These verbs derive from invisible syntactic structure which parallels an overt syntactic structure with the same entailments

The cow calved



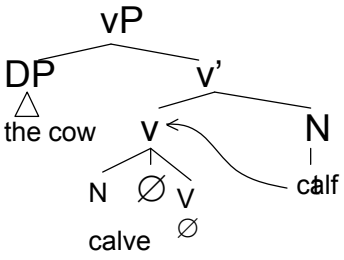
The cow bore a calf



Decomposing denominal verbs

- The underlying noun *calf* turns into a verb by head-movement — it incoporates into the nearest c-commanding head, the v°:

The cow calved



Decomposing denominal verbs

- The other verbs of birthing, and indeed of bodily emission (*drool, sweat,* etc) are similarly derived
- Benefits: no need to list these nouns redundantly as verbs in the lexicon
- Just need one null verb, meaning something like 'make' or 'emit' or 'produce', plus an independently motivated syntactic process
- Entailments are the same as the overtly transitive structure for 'free'

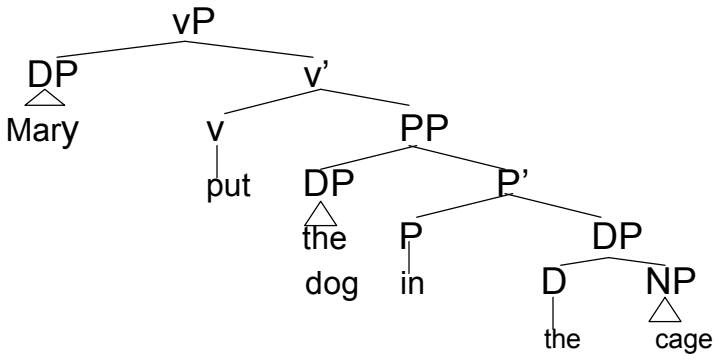
Location verbs

- *archive bag bank barrell bed bench berth billet bin bottle box cage can case cllar coop corral crate ditch dock drydock encase enthrone entomb file fore front-page garage grain greenhouse groove ground hangar house ice imprison index invaginate jail jar jug kennel land lot net package pasture pg pen pillory pocket pot reel sheathe sheler shelve shoulder skewer snare spindle spit spool stable string table terrace thread tin trap tree tub tube warehouse*

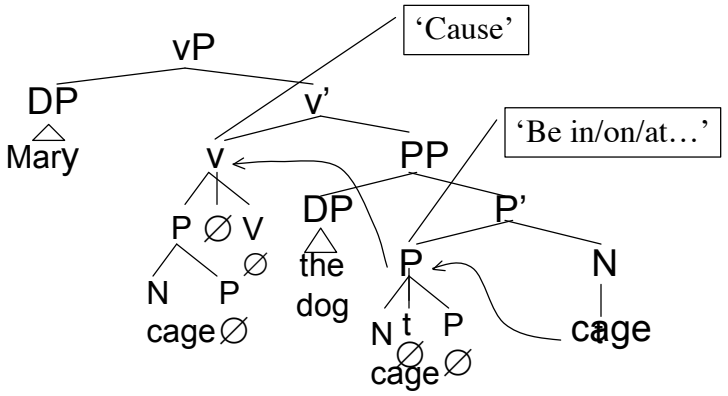
*Mary **caged** the dog =*

*Mary put the dog in a **cage***

Location verbs



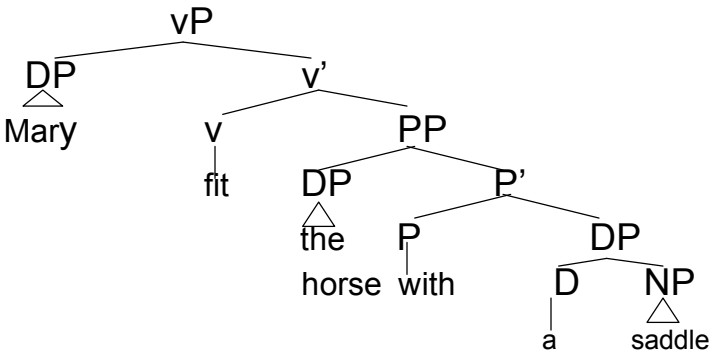
Location verbs



Locatum verbs

- *aluminum, arch, arm, asphalt, bait, bandage, bar, begrime, blanket, blindfold, board, bread, brick, bridle, bronze, butter, buttonhole, cap, caption, carpet, caulk, chrome, cloak, clothe, cloud, color, coat, cork, crown, curtain, diaper, ditch, dot, drug, fence, flag, flour, forest, frame, fuel, gag, garland, garter, gas, gild, glaze glove, graffiti, gravel, grease, groove, halter, harness, heel, hem, hole, ice, index, ink, jacket, label, leaseh, leather, leaven, letter, lipstick, malt, mantle, mask, mulch, muzzle, nickel, oil, ornament, pad, panel, paper, parquet, partitiion, patch, pattern, pepper, perfume, pitch, plank, plaster, pomade, poster, postmark, powder, putty, question mark, robe, roof, rosin, shingle, shoe, shutter, signpost, silver, slate, slipcover, soap, sod, sole, soot, spice, stain, star, starch, stopper, stress, string, stucco, sugar, suit, sulphur, tag, tar, tarmac, tassel, thatch, thread, ticket, tile, tube turf, vault, veil, veneer, vent, wallpaper, water, wax, whitewash, wreathe, yoke*

Location verbs



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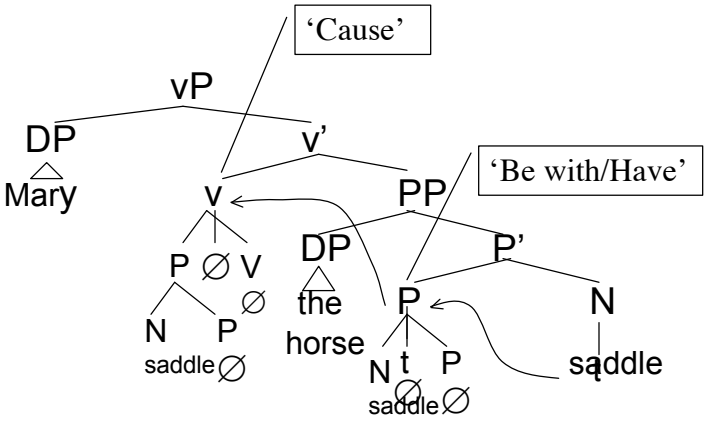


Location/Locatum verbs

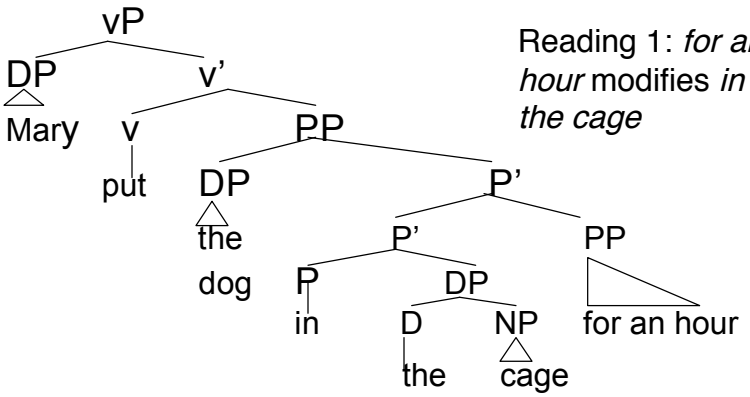
- In the paraphrase, a temporal modification of the endstate (distinct from the action) is possible

Mary put the dog in the cage for an hour.

2 readings:

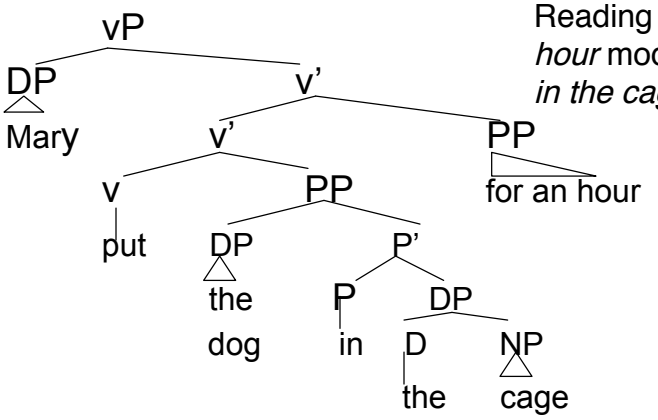
1. Mary put the dog in the cage once, and left him in the cage for an hour
2. Mary put the dog in the cage repeatedly for an hour (iteration of putting events)

Structural ambiguity: paraphrase



Reading 1: *for an hour* modifies *in the cage*

Structural ambiguity: paraphrase



Reading 2: *for an hour* modifies *put in the cage*

Location/Locatum verbs

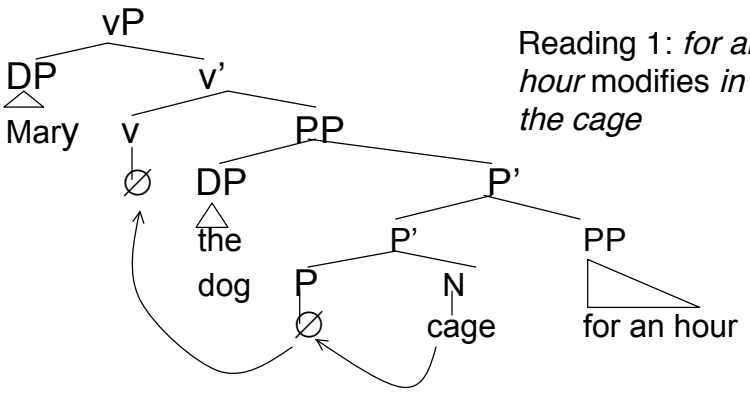
- The same ambiguity is present in the simple verb:

Mary caged the dog for an hour.

2 readings:

1. Mary caged the dog once, and left him **in the cage** for an hour
2. Mary caged the dog repeatedly for an hour (iteration of caging events)

Structural ambiguity: verb



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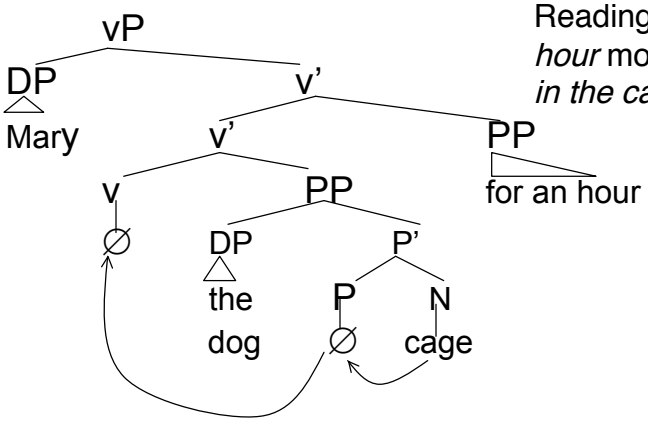


Reading 2: *for an hour* modifies *put in the cage*

Location/Locatum verbs: Productivity

Homer (in a Japanese restaurant):

"Fugu me!"

('bring me some fugu')

Homer (in an ominous-looking antique shop, buying a cursed monkey paw):
"Paw me!"

Location/Locatum verbs: Measuring-out (Harley 98-05)

- In a temporally-bounded event — changes of location or state — certain internal arguments can 'delimit' the duration of the event by virtue of their physical properties
- Canonical example:
  - Mary wrote prose for an hour /#in an hour
  - Mary wrote a letter in an hour /#for an hour

Location/Locatum verbs: Measuring-out

- Same seems to be true with locatum verbs and their periphrases
  - John sprayed the garden with **water** for an hour
  - John fit the horse with **a saddle** #for an hour
  - John covered the wall with **paint** for an hour
  - John fit the hook with **a piece of bait** #for an hour

Location/Locatum verbs: Measuring-out

- Same is true with locatum verbs and their periphrases
  - John **water**ed the garden for an hour
  - John **saddle**d the horse #for an hour
  - John **paint**ed the wall for an hour
  - John **bait**ed the hook #for an hour

Location/Locatum verbs: Measuring-out

- Temporal extent of the event is related to the properties of the locatum in the same way in the paraphrases and in the simple verbs
- Syntactic/semantic mapping can be uniformly represented if simple verbs have structure of paraphrases

The case against covert structure

- Syntax is productive. Denominal verb production is subject to idiosyncratic-seeming constraints (Kiparsky 1997)
- Location A but not location B
  - Mary put the money in a bank
  - Mary banked the money
  - Mary put the money in a church
  - #Mary churched the money

The case against covert structure

- Syntax is productive. Denominal verb production is subject to idiosyncratic-seeming constraints
- Locatum, but not location
  - John put mulch on the garden
  - Mary covered the garden with mulch
  - #John gardened the mulch
  - Mary mulched the garden

The case against covert structure

- Locatum, but not location
  - John put a coat of paint on the house
  - Mary covered the house with paint
  - #John housed the paint
  - Mary painted the house

The case against covert structure

- Location, but not locatum
  - John put a horse in the corral
  - Mary filled the corral with horses
  - John corralled the horse
  - #Mary horsed the corral

The case against covert structure

- Location, but not locatum
  - John the meat on a skewer
  - Mary filled the skewer with meat
  - John skewered the meat
  - #Mary meated the skewer

The case against covert structure

- DiSciullo and Williams: Discourse referents introduced in syntax
  - John has a lovely tea<u>pot</u> #but never drinks <u>it</u>.
  - Mary uses her <u>lawn</u>mower all the time. #Even so, <u>it</u> still looks awful.
  - Mary <u>paint</u>ed her house yesterday. #<u>It</u> was acrylic
  - John <u>thread</u>ed the needle #but then found <u>it</u> didn't match his shirt.

The Canonical Use Constraint

- Paraphrases of course allow reference:
  - Mary covered her house with <u>paint</u> yesterday. <u>It</u> was acrylic
  - John got as far as putting <u>thread</u> in the needle but then found <u>it</u> didn't match his shirt.

The case against covert structure

- Syntax is productive. One common test for movement fails
- Under movement, (some) modifiers can be stranded…
  - **All the girls** can swim
  - **The girls** can **all** swim.

The case against covert structure

- Modifiers cannot be stranded by location/locatum head-movement
  - John put the horse in a square corral
  - #John corralled the horse square
  - John fit the horse with a Western saddle.
  - #John saddled the horse Western.
  - (not a great argument because of course adjectives can't be stranded under *any* movement in English, but you get the point -- same with *all*)

The case against covert structure

- Spots occupied by later-moved terminal nodes should be empty
  - **The cop** was kissed (*the state trooper) by John
  - **The tune** was sung (*Sweet Adeline) by Bill.
  - **What** did John buy (*it)?
  - **Has** John (*can) leave?

The case against covert structure

- Spots occupied by later-moved terminal nodes should be empty — but:
- Hyponomous objects
  - You made me **bleed** my own **blood**!
  - John **saddled** the horse with a **blanket**
  - He **painted** the walls with **turpentine**
  - She **calved** a bull **calf**
- Conclusion: these verbs are not created in the syntax
- Current talk can be taken as a reply to all but the H.O. objection

The Canonical Use Constraint

- In particular, I want to focus on the claims about the lexical semantics of denominal verbs, in contrast to their paraphrases
- Why not *#bush the mulch?*
- Why not *#house the paint*?
- Why not *#horse the corral*?
- Why not *#meat the skewer*?

The Canonical Use Constraint

- Kiparsky's thoughts:
- "To block the use of *garden* and *house* in this other, unwanted sense, H&K would have to preclude the relation between mulch and garden, and between house and paint, from qualifying as an instance of 'central coincidence….Either the semantic content of the abstract prepositions needs sharpening, or there is an additional element of conceptual structure at work."

The Canonical Use Constraint

- Kiparsky: “The canonical use constraint”
- Lexical items like this formed in the lexicon, not the syntax
- Lexicon subject to special semantic irregularities from which syntax is exempt (witness goodness of both paraphrases)
- “If an action is named after a thing, it involves a canonical use of the thing.”

The Canonical Use Constraint

- Kiparsky: “The canonical use constraint”
- Locatum verbs: Putting x in y is a canonical use of x.
- Location verbs: Putting x in y is a canonical use of y.

The Canonical Use Constraint

- Reminsicent of Fodor's 1981 argument against *paint* as CAUSE TO COVER SURFACE WITH PAINT, at any level, syntactic or semantic
  - "..when Michelangelo dipped his brush into Cerulean Blue, he thereby covered the surface of his brush with paint and did so with the intention that his brush should be covered with paint as the result of having dipped it. But Michelangelo was not, for all that, painting his brush."

The Canonical Use Constraint

- Ditto for McCawley 1971's discussion of nailing (as described by Gergely & Bever 1986):
  - "one does not 'hammer a nail in' when one places the hammer on the nail and then sits on it, though obviously this non-stereotypic manner of driving he nail in also shares the basic features of the direct causation prototype."
  - Issue is not nature of causation involved, but *canonical use* ('stereotypical use') of the incorporated N

The Canonical Use Constraint

- Kiparsky: “The canonical use constraint”
- If an object has both canonical uses, the denominal verb formed from it has both meanings
  - *ice*: to put ice in something/put something on ice
  - *index*: to give something an index/to put something in an index
  - *string*: to put strings on/to put on strings
  - *thread*: to put thread on/to put on thread

The Canonical Use Constraint

- More cases from Kiparksy
  - *#The motels were full, but the authorities managed to imprison all the victims of the flood*
  - *#Because there was no room at the inn, Joseph and Mary stabled the infant Jesus*
- Not canonical use of prisons or stables!

The CUC: Not something about forming words in the lexicon

- Something like the CUC seems to apply in another class of cases in English
- Certain English nouns have 'bare singular' forms
  - *John is going to **school***
  - *I'll see you in **court***
  - *The captain wants everyone on **deck***
  - *The workers on **site** found conditions to be awful.*
  - *The pastor insists that everyone come to **church** once a week.*
- Stvan 1998: "Bare singular NPs"

Bare Singular NPs

- These seem to be subject to a CUC as well
  - John is going to **school**
    - For education!
  - John is going to **the school**
    - To deliver something? A dance? a concert?
  - The pastor wants everyone to come to **church** once a week
    - For services!
  - The pastor wants everyone to come to **the church** once a week
    - To pick up aid supplies? Paint the pews? Town meeting?

Bare Singular NPs

- Stvan identifies three senses for bare singular NPs
  - Activity sense

    Her alternative was 90 days in jail.

    (Gary Putka, "Classroom Scandal: Cheaters in Schools MayNot Be Students, But Their Teachers," *Wall Street Journal,*Nov. 2, 1989)
  - "being held as a prisoner"

    My cousin is in the jail.
  - could be doing anything

Bare Singular NPs

- "This sense is created by asserting information about the activity of the located person at the named location, an activity that is one typically associated with the type of place named. The location itself is treated as backgrounded information, that is, the fact that some actual jail is involved in the jailing activity is assumed, but this aspect is not the one highlighted by the use of *in jail*; hence, many people have referred to bare singular forms in general as institutional or generic uses of the noun since they do not pick out a particular referent." Stvan: 11

Bare Singular NPs

- "Familiarity sense"
  - "I work at home"
  - "I work at a home"
- "Generic sense"
  - "Religious conversion is a slippery concept in prison."

Not count nouns

- English count nouns must either occur with a determiner or in a plural form
  - Speaking of *dogs…*
  - I saw *dog/a dog/dogs
- Mass nouns and bare singular NPs need have neither
  - Speaking of *school…*
  - Speaking of *rice*…

Stvan: some have 'incorporated' equivalents

a.	abed	in bed
	asea	at sea
	ashore	on shore
	aboard	on board
b.	imprisoned	in prison
	encamped	at camp

Bare Singular NPs vs mass nouns

- Mass nouns allow determiner quantification
  - I ate some rice/meat/food
  - I didn't see much rice/meat/food there
- Bare singular NPs, generally, don't
  - *I didn't spend time in much prison
  - *Going to a little court doesn't bother me. It's when my trial lasts more than a week that I get antsy

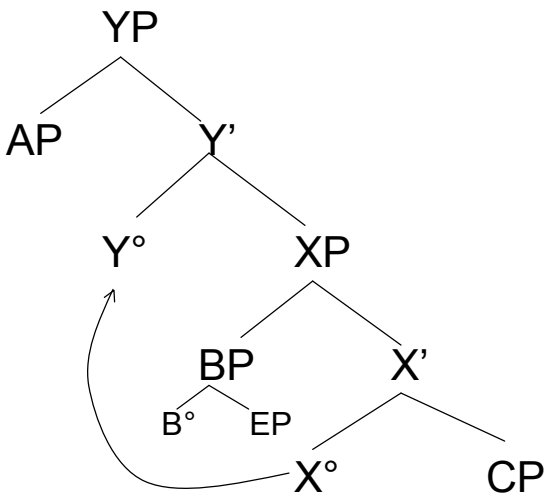
Generalization

- At least in English, when an NP is genuinely bare—as with these bare singular NPs—it is subject to the CUC

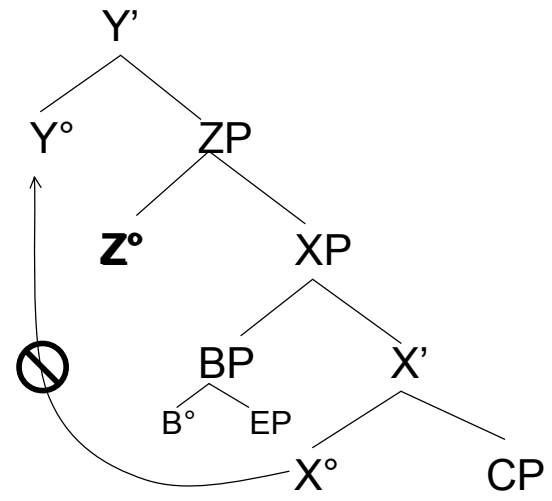
The point

- In order to incorporate, without violating the Head Movement Constraint, an N° has to be genuinely bare.
- Head Movement Constraint (Minimal Link Condition version):
  - An X° may only move into a c-commanding head Y° if there is no closer intervening head Z° c-commanded by Y° and c-commanding X°

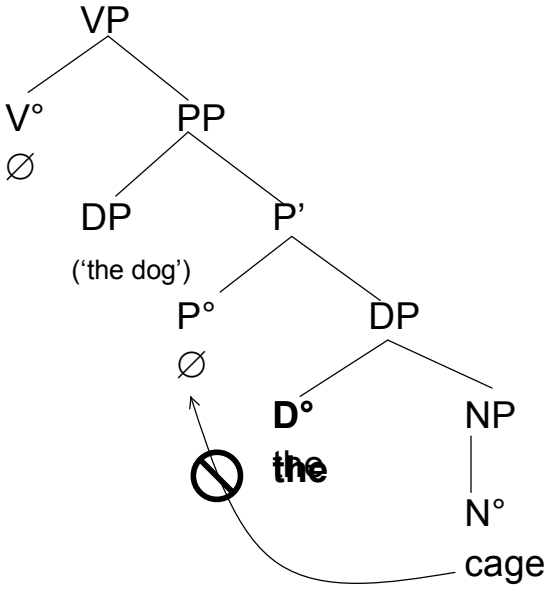
Head Movement Constraint



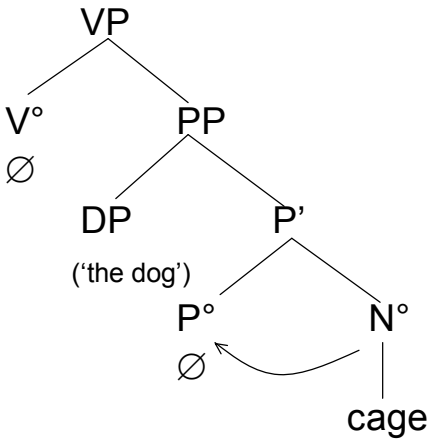
Head Movement Constraint



Incorporating with N° vs DP°



Incorporating with N° vs DP°



In a nutshell…

- If you are a bare N, you are subject to the CUC (*school, prison,* etc.)
- You must be a bare N to incorporate
- *Therefore*, incorporated Ns are subject to the CUC

Incorporation and the CUC

- Mithun 1984: 848 'Compounding' Noun Incorporation: 'name-worthiness'
  - "Some entity, quality or activity is recognized sufficiently often to be considered name-worthy in its own right; thus English *bus money* or *lunch money* are more likely nominal compounds than *sock money* or *screwdriver money*. Again, *berry money* might be used by someone employed as a berry-picker, but probably not by someone unexpectedly spying boysenberries at the market."

Incorporation and the CUC

- Mithun 1984: 848 'Compounding' Noun Incorporation: 'name-worthiness'
  - "In *he is off berry-picking*, the word *berry* does not refer to a specific berry, nor to a particular bushelful of berries… Because it does not refer, it is not marked for definiteness or number."
- Better to say, because it is not marked for definiteness or number, it does not refer
- Because it is not marked for definiteness or number, *it can incorporate*

Incorporation and the CUC

- Examples from Mithun
  - Tupinamba

    a-pi̶sa€-eyti̶€k

    1sg-fishnet-throw

    "I throw fishnets"

  - Yucatec Mayan

    č'ak-če'-n-ah-en

    chop-tree-antipass-perf-1sg

    "I chopped wood"

Bare, free Ns crosslinguistically

- In the overt syntax, only a few count Ns may appear truly 'bare' in English
- All others must be embedded in functional structure — plurals, with a determiner—or else incorporated
- Even mass nouns have been argued to have null functional structure; case-checking requires it
- Other languages are not so draconian

The CUC and pseudo-incorporation

- Case involves functional superstructure on the N
- Even in non-incorporating languages, 'pseudo-incorporation' — V+N in tight construction, N without case — is associated with generic/canonical interpretation of the N
- In these cases, conflation into a single word *does not* occur — not 'lexical'
- Niuean, Hindi

The CUC and pseudo-incorporation

- Niuean: Massam 2001

a. Takafaga tumau ni e ia e tau ika
hunt always EMPH ERG he ABS pl fish
"He's always hunting fish" (V adv S O)

b. Takafaga ika tumau ni a ia
hunt fish always EMPH ABS he
"He's always fish-hunting"

– No case or number morphology can be on *ika* in b.

The CUC and pseudo-incorporation

- Niuean: Phrases headed by bare Ns ok

Ne inu kofe kono a Mele
PSTdrink coffee bitter ABS Mary
"Mary bitter-coffee-drank"

Kua kai ika mo e talo a mautolu he mogonei
PREF eat fish with ABS taro ABS we.exl at now
"We're fish-with-taro-eating right now."

The CUC and pseudo-incorporation

- Hindi: Dayal 2003 "Semantic but not syntactic incorporation": correlated with presence of determiners, case-marking

Anu bacca sambhaal rahii hai
Anu child is-looking-after
"Anu is babysitting"

Anu bacce-ko sambhaal rahii hai
Anu child-ACC is-looking-after
"Anu is looking after the child."

The CUC and pseudo-incorporation

- Dayal argues that incorporation cannot be conflated with weak indefinites on the basis of number neutrality of the bare singular NP in object position
- Also: "A second property [of incorporated nominals] that has been noted is that there are gaps in possible N+V combinations, one of the reasons for debate about incorporation being a lexical vs. a syntactic process. Similar idiosyncracies can be seen in Hindi"

The CUC and pseudo-incorporation

- Gaps in bare N-V combos in Hindi

laRkii dekhnaa girl seeing	*aurat dekhnaa woman seeing
baccaa khilaanaa child looking.after	*laRkii khilaanaa girl looking.after
*baccaa maarnaa child beat	*laRkii sulaanaa girl put.to.sleep

The CUC, then…

- …is not something about 'incorporation' — the syntactic conflation of two roots into a single word — but something about interpreting bare Ns
- It's *correlated* with syntactic incorporation, because incorporation is subject to the HMC, so only bare Ns can incorporate.
- Hence we are justified in pursuing the H&K program of syntactic decomposition a bit further