# Ling 566 Dec 4, 2012 

Variation in the English Auxiliary System

## Overview

- AAVE copula absence
- Why it's not phonological deletion
- Alternative syntactic analyses
- The winner: An empty element (!)
- Reflection on syntactic argumentation
- Reading questions


## Linguistic Argumentation

- The available data usually underdetermines the analysis (cf to)
- Sometimes appeals to naturalness can help
- Further constraints come into play when we try to make interacting analyses consistent
- Still, just about everything could be done differently if we're willing to change assumptions
- Data underdetermines the theory; difficult to argue that something must be analyzed a certain way


## An Unusual Case

- The verbless sentences in Chapter 15 provide a rare example where the data seem to force a particular kind of analysis
- Specifically: an empty element
- And we tried very hard to avoid it


## Notes on African American Vernacular English

- aka Ebonics, Black English, and various other things
- All natural languages are systematic
- This is just as true of stigmatized varieties as of prestige dialects
- The claim that AAVE has "no discernible rules" (columnist William Raspberry) is blatantly false
- This is not to deny the social and economic value of using a prestige dialect
- But prestige is not correlated with systematicity


## Missing be in AAVE

- Some AAVE sentences:

Chris at home
We angry with you
You a genius
They askin for help

- Like SAE sentences with a form of be missing
- Analogous sentences occur in many languages


## AAVE Also Allows Sentences With be

Chris at home
We angry with you
You a genius
They askin for help

Chris is at home
We're angry with you
You are a genius
They're askin for help

## Labov's Deletion Account

- Copula absence comes about when contracted auxiliaries ('s and it 're) are deleted altogether
- Predicts that copula absence is only possible where contraction is: (strong claim)
You got to be good, Rednall!
*You got to $\varnothing$ good, Rednall!
Be nice to your mother!
* $\varnothing$ Nice to your mother!

It ain't a flower show, is it?
*It ain't a flower show, 's it?
*It ain't a flower show, $\varnothing$ it?

## Counterexamples to Labov's Account

How old you think his baby is<br>*How old you think his baby 's<br>How old you think his baby $\varnothing$<br>Tha's the man they say is in love<br>*Tha's the man they say 's in love<br>Tha's the man they say $\varnothing$ in love

- The relevant examples here are with fully contracted 's
- These examples show that copula absence can't depend on copula contraction


## Our Challenge

- Provide a precise analysis of AAVE copula absence within our theory
- Account for all of the facts covered by the deletion account
- Deal with the counterexamples to the deletion account


## Two Possible Analyses

1. Add another initial symbol which is [HEAD [PRED +]], not [HEAD verb]:

$$
\left[\begin{array}{lll}
\text { HEAD } & \left.\begin{array}{ll}
\text { pos } & \\
\text { PRED } & +
\end{array}\right] \\
\text { VAL } & {\left[\begin{array}{ll}
\text { SPR } & \rangle \\
\text { COMPS } & \rangle
\end{array}\right]}
\end{array}\right]
$$

2. Write a special grammar rule for verbless clauses:


## A Counterexample to Both: How old you think his baby $\varnothing$

- LDDs require that a non-empty GAP list be licensed by a lexical head that is missing an argument
- Neither the initial symbol analysis nor the grammar rule analysis posits a lexical head corresponding to is that would license the gap
- If we posit a silent variant of finite forms of $b e$, we solve this problem


## The Silent be Analysis

Silent be Lexical Rule

$$
\left.\left[\begin{array}{ll}
\left.\begin{array}{ll}
i \text {-rule } & \\
\text { INPUT } & \langle\text { be }, \mathrm{X}\rangle \\
\text { OUTPUT } & \langle\phi,[\text { HEAD }
\end{array}\right]\left[\begin{array}{ll}
\text { AGR } & \text { non-1 } \operatorname{sing} \\
\text { FORM } & \text { fin } \\
\text { INV } & -
\end{array}\right]
\end{array}\right]\right\rangle
$$

- This is a highly specialized lexeme-to-word rule (i-rule)


## Some Questions About This Rule

Silent be Lexical Rule

$$
\left.\begin{array}{l}
\left.\left[\begin{array}{ll}
i \text { INPule } & \\
\text { INPUT } & \langle\text { be , X }\rangle \\
\text { OUTPUT } & \left\langle\phi,\left[\text { HEAD }\left[\begin{array}{ll}
\text { AGR } & \text { non-1sing } \\
\text { FORM } & \text { fin } \\
\text { INV } & -
\end{array}\right]\right.\right.
\end{array}\right]\right\rangle
\end{array}\right]
$$

Which lexemes does it apply to? Those spelled be
Why is the output [FORM fin]? *You got to $\varnothing$ good
Why is the output AGR non-1sing?
Why is the output [INV -]?
*I $\varnothing$ hungry.
*It ain't a flower show, $\varnothing$ it?

## How does this account for LDDs?

Silent be Lexical Rule

$$
\left[\begin{array}{ll}
\left.\begin{array}{ll}
i \text {-rule } & \\
\text { INPUT } & \langle\text { be }, \mathrm{X}\rangle \\
\text { OUTPUT } & \left\langle\phi,\left[\text { HEAD }\left[\begin{array}{ll}
\text { AGR } & \text { non-1sing } \\
\text { FORM } & \text { fin } \\
\text { INV } & -
\end{array}\right]\right]\right\rangle
\end{array}\right]
\end{array}\right.
$$

Answer: The usual way. That is, the output of this rule (silent be) can have a non-empty GAP list. The fact that the verb is not pronounced doesn't matter.

## A Possible Objection

- Earlier, we touted the WYSIWYG character of our theory: everything justified by something observable.
- Doesn't positing an inaudible verb undermine that claim?
- Response
- A word with no phonology is just the shortest possible word
- Positing one such word, with restricted distribution is qualitatively different from allowing multiple "empty categories" that can appear in many places


## Conclusions

- Studying a variety of languages and dialects is important to discovering what formal devices are necessary to account for natural language
- Formulating a precise theory of grammar allows us to investigate in detail the differences between dialects and between languages
- We were able to make the argument for a silent verb because our analyses were precise, and the consequences could be worked through


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## Reading Questions

- For the Silent Be Lexical Rule, why is there an $X$ in the input? If we have several different lexical entries for be, shouldn't the rule specify which be can be accepted as input? Where does the output fit in the lexeme hierarchy? Does the silent word have a lexical entry?


## The Silent be Analysis

## Silent be Lexical Rule

$\left[\begin{array}{ll}\text { InPule } & \\ \text { INPUT } & \langle\text { be }, \mathrm{X}\rangle \\ \text { OUTPUT } & \left\langle\phi,\left[\operatorname{HEAD}\left[\begin{array}{ll}\text { AGR } & \text { non-1sing } \\ \text { FORM } & \text { fin } \\ \text { INV } & -\end{array}\right]\right]\right\rangle\end{array}\right]$

## Reading Questions

- Will silent be still have a leaf node on the trees? I thought we were't able to do "Deep Structure" type stuff. Is it considered an empty node? Or is it still there, only silent?
- Does the silent be lex rule presented in the chapter work for other languages?


## Reading Questions

- Is the silent be lex rule involved in licensing The bird sing?
- What about a silent do lex rule?
- Does our analysis of silent be interact with the analysis of imperatives to incorrectly generate: (8b) *nice to your mother!


## Reading Questions

- How do we account for these? Can silent be help?

1. He be working. (meaning: habitual action)
2. He been working. (meaning: SAE: He has been working)
3. He done been working. (meaning: completed action that was ongoing)

## Reading Questions

- What is the HEAD value and head daughter in each of these sentences (from (13))?
a. It wild.
b. You in trouble.
c. Leslie the boss.
d. Somebody coming to dinner.
e. Jean interviewed by a reporter.


## Reading Questions

- The silent copula is icky. Do we have to have it? Does it show that our model was wrong for language in general?
- If we're using the symbol phi for the empty string, doesn't that mean that as far as the syntax is concerned there's still something there?
- Is there any psycholinguistic or other independent evidence for silent be?
- What is the impact of the silent copula on parsing performance?


## Reading Questions

- Has the silent copula analysis been applied to other null copula languages?
- Do any null-copula languages use the null copula for past and future?


## Reading Questions

- Page 458 discusses ancillary structures and says: "There are no operations that destructively modify any representations".
- Page 459, the last paragraph before 15.3.3 alludes to destructive transformation of strings.
- Finally 15.3 .5 starts with "...our theory of grammar... does not allow any operations that destructively modify feature structures."
- What would be some examples?


## Reading Questions

- Why can't we write a rule like the Optional that lexical rule to "delete" the copula?
- If we have a silent copula, why not silent complementizers/relativizers/2nd person pronouns in imperatives?


## Reading Questions

- What about missing aux sentences in SAE (presumably INV +, so not silent be)?

You ready for this?
They going to the show?

## Reading Questions

- Which have (auxv-lxm vs. stv-lxm) is involved in each of these? How are the auxiliary properties handled?

They have had difficulties comprehending.
They had difficulties comprehending.
They have difficulties comprehending.
They had had difficulties comprehending.
*They have have difficulties comprehending.

## Reading Questions

- Should we start with the dialects \& work from there to the "standard" or vice versa, when building grammars?
- Does the ERG license trees like "We angry with you" or "Have you any idea?", when only certain speakers would deem them grammatical? Or would a differing dialect be given its own specific grammar?

