# Ling 566 Dec 6, 2022 

Variation in the English Auxiliary System

## Overview

## Reminder: <br> Course evals!

- AAL 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


## RE: Data underdetermines theory, your current sense of syntactic analyses:

One right answer, we might not have found it yet If we only look at grammatical ity/paraphrases, always underdetermined

Could be that different speakers have internalized different analyses

Not sure that grammars are modeling wetware

None of the above

## 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 Language

- aka AAE, AAVE, 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 AAL 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


## Further readings on AAL

- Rickford, J.R. \& R.J. Rickford. Spoken soul: The story of black English. John Wiley \& Sons Incorporated, 2000.
- Lanehart, Sonja, ed. The Oxford Handbook of African American Language. Oxford University Press, 2015.
- Mufwene, Salikoko S., et al., eds. AfricanAmerican English: structure, history, and use. Routledge, 2021.


## Missing be in AAL

- Some AAL sentences:

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

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


## AAL 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 AAL 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]:

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

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

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

Which lexemes does it apply to?
Why is the output [FORM fin]?
Why is the output AGR non-l sing?
Why is the output [INV -]?

Those spelled be
*You got to $\varnothing$ good
*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


# What do you think about empty categories? 

Any/all okay. Empty categories are cool!

Traces of movement seem more plausible than a silent verb

A silent verb seems more plausible than traces

Don't like them

## 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

- When creating a feature based grammar for other languages maybe more closely related, but not dialects, do syntacticians tends to work over existing work from a closely related language (but not mutually intelligible)? And if there is not much pre-existing work on the related/similar phenomena languages, if it's better to start from scratch.
- For AAVE, it seems to me that the sentences are still understandable and linked with their counterpart in standard American English. I want to know if this can be captured by our grammar?


## Reading questions

- Can the degree of difference between two grammars of separate varieties help us to quantify their syntactic difference(?) from one another? (E.g. Variety B adds 2 new phrase structure rules to Variety A. But, Variety C adds 4 new phrase structure rules to Variety A. Does this imply Variety B is closer to Variety A than Variety C?)


## Reading questions

- This chapter illustrates how we can capture dialects of a language using existing grammars of that language. Could we extend this framework of modifying the existing grammar to studying and modeling other phenomena? e.g., by creating rules/lexeme types/principles that capture how certain parts of speech are more likely to swapped in code-switched speech by multilingual speakers, common psycholinguistics errors (like the agreement error in the bag of marbles were here), or overgeneralizing of regular plural and past-tense rules by children learning English as L1? (e.g. in the last case, regular nouns/verbs would have a "REGULAR" atomic feature, where [REG +] lexemes would under go some overgeneralization lexical rule.)


## Reading questions

- Is it possible to come up with rules that act as a sort of translation system between dialects?


## Reading questions

- Another salient feature of AAVE is the use of double negatives. Could this be handled with a lexical rule as well?
- I imagine something similar to the ADVpolAddition Rule? Or we allow a version of the ADVpol rule to occur twice by changing the POL constraints and tweaking the semantics?


## Reading questions

- fn 5 on page 456 claims that "Linguists place little stock in the language/dialect distinction." What does this mean for multilingual / multi-variational implementations of the grammar? Is there any distinction in an implemented grammar between how we treat variational differences and how we treat language differences?


## Reading questions

- Is the Silent Copula being used in other American dialects? Are there some rules that aren't in use any more because the language has changed?


## Reading questions

- "Variation is interesting in its own right, but studying it also helps us to ascertain which properties of our grammar we should formulate as or deduce from general principles, and which ones we should treat as essentially accidental." Do you have examples of grammar properties we should treat as essentially accidental?


## Reading questions

- How should we approach grammatical variation modeling like this copula deal in a grammar in general? On one hand, I get that grammar should be the North Star of all the variations within a language, but trying so hard to fit a variant under the standard variant is such a painful process. On the note of what to include and what to exclude in a grammar, discourse markers like this copula is messy so often left out from grammar.


## Reading questions

- How would we handle something like codeswitching, either within a sentence or within a broader context, i.e. a book written in SAE with AAVE dialogue?


## Reading questions

- I am curious what is stopping us from generalizing the Silent Be Lexical Rule to some type of Null Lexical Rule that can be used in rules such as the Imperative Rule and the Plural Noun Lexical Rule where the VP and the Noun are asking for an unrealized SPR value?


## Reading questions

- This chapter states that its ok to "depart from strict surface-orientation only when faced with data that admit no other analysis" (465). I'm wondering if there are any generalizations that can be made about the phenomena that require us to use a nonsurface oriented analysis?


## Reading questions

- It looks like Bender (2001) which gets referenced throughout the footnotes and in the recommended reading is Emily's PhD dissertation. How do you go about studying the dialect of a group which you don't identify with, especially when the dialect is marginalized or might not want to be studied by the group that speaks it?


## Reading questions

- How important is it (or is it important at all) for a theory of syntax to be able to handle "non-standard" varieties of language? Or is that more of a worry for implemented grammars when interacting with real people?


## Reading questions

- In practice, do any grammar parsers actually check for silent words? What would be the performance impact of taking these into account?


## Reading questions

- I'm curious what your experience is, having worked on implementing this grammar over the years, what you think about the "tools" or base formalisms and if you find your self going more frequently to lexical rules to describe linguistic phenomena or to grammar rules?


## Reading questions

- Also, at a typological level, what features of languages (and dialects within languages, like AAVE) within HPSG do you observe "get the most coverage" or are generally similar across languages? What has surprised you as being different?

