The Dative Alternation in African American English: Researching Syntactic Variation and Change in a Conglomerated Corpus

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The dative alternation

a. Who gave that wonderful watch to you? prepositional (to-)dative theme-NP recipient-PP

b. Who gave you that wonderful watch? double object construction recipient-NP theme-NP

Bresnan and Hay (2008: 246)

Previous research

• Previous corpus-based studies of the alternation (cf. Gries 2003, 2005, ...)

• Bresnan, Cueni, Nikitina, and Baayen (2007)
  – Examining the Switchboard Corpus (Godfrey et al. 1992) and the Wall Street Journal corpus (Marcus et al. 1993), Bresnan et al. demonstrate that a statistical model can predict the choice of the alternate in unseen data with 94% accuracy
  • Based on factors like animacy, pronominality, discourse accessibility, givenness

Inter-vary research on the alternation

• Bresnan and Hay (2008)
  – Compared give in American and New Zealand English varieties

• Bresnan and Ford (2009)
  – Compared American and Australian subjects’ knowledge of probabilistic grammatical choices through psycholinguistic experiments, found subtle differences

• Mukherjee and Hoffman (2006)
  – Following up Olavarría de Ersson and Shaw (2003)
  – Demonstrated that the prepositional dative is more common in Indian English than British English
  – “Verb complementation has so far been underestimated as an area of the language system in which regional differentiation figures prominently” (Mukherjee and Hoffman 2006: 149)
Beyond macro-regional differences?

- Are the sorts of macro-regional differences found for the alternation evidenced in other sociolinguistic varieties, such as ethnic varieties like African American English?

- How do the probabilistic models developed by Bresnan et al. (2007) extend to ethnic, often regionally-embedded, varieties?

- Do these regionally-embedded ethnic varieties exhibit more or less variation than regionally distinct varieties?

African American English (AAE)

- A central object of study in North American sociolinguistics (cf. Wolfram 1969, Labov 1972a, ...)

- More than five times as many publications on AAE than any other ethnic or regional dialect (Schneider 1996:3)

- AAE rarely studied outside of sociolinguistic and applied/educational perspectives
  - Rarely used to examined theoretical linguistic qs

Labov (1972b)

- Sociolinguistic variables can be considered as one of:
  - **Sociolinguistic Indicators**
    - Correlate with social differences, but carry little or no social meaning (e.g., caught/cot vowels in US)
  - **Sociolinguistic Markers**
    - Vary stylistically as well as socially, carry observable meaning (e.g., -in’ for -ing)
  - **Sociolinguistic Stereotypes**
    - Highly salient, often commented upon and/or consciously avoided (e.g., Southern y’all; ain’t for isn’t)

- Typically, AAE studies focus on markers and stereotypes

Sociolinguistic/AAE datasets

- No available large-scale corpora of AAE

- Individual sociolinguistic collections of AAE data are most often
  - Closed resources
  - Fairly small
  - Not transcribed or not well transcribed
  - Actually contain multiple varieties – e.g., often non-AAE speaking interviewers
Our “conglomerated” data collection

• Sociolinguistic interview recordings (transcribed audio)
  – From the Sociolinguistic Archive and Analysis Project (SLAAP; http://ncslaap.lib.ncsu.edu/)
  ~ 165,000 words of AAE
  – From generous colleagues
  ~~ 160,000 words of AAE

• Sociolinguistically compiled antebellum ex-slave letters
  – From the Ottawa Repository of Early African American Correspondence (OREAAC)
  ~ 140,000 words of AAE written between 1834 and 1866 by semi-literate African American immigrants to Liberia

Data extraction and coding

• Materials started in a number of formats
  – Spoken data were converted to plain text
    • SLAAP data are stored in a relational database, but SLAAP software exports to plain text (cf. Kendall later today)
    • Other spoken data in a range of formats
      – Word documents saved to plain text and then cleaned up in Emacs
      – Transcriber transcripts and Praat TextGrids converted to plain text via tools at
        http://ncslaap.lib.ncsu.edu/tools/
  – Then a Perl script searched for regular expression "^g[ai]vw$" using a look-up table to skip non-African American speakers
  – All matches were reviewed/pruned by hand and then coded by hand

  – OREAAC materials retain highly non-standard spelling so all tokens were manually extracted and coded

Actual examples

• “So he gave me potato chips”
  – Tinky, Contemporary Spoken, Rickford-EPA

• “I will give you Specimen of it”
  – DM, Historical Written, OREAAC

• “it has already Given and impetus to Evry Branch of Bisness”
  – NN, Historical Written, OREAAC

• “She’s liable to send me a check or something”
  – RS, Contemporary Spoken, SLAAP-Hyde County

• “she took a balloon to that baby”
  – LM, Contemporary Spoken, SLAAP-Robeson County

AAE data summary

• SL-Contemporary, spoken:
  – N = 172 (30 NP PP, 17.4%)

• SL-Letters, historical/
  written:
  – N = 167 (28 NP PP, 16.8%)

• Total:
  – N = 339 (58 NP PP, 17.1%)

  • Nb,
    – About 5 tokens for every 10,000 words in our overall corpus of spoken language
    – About 12 tokens for every 10,000 words of our letters corpus

Summary of African American English ‘give’ data

<table>
<thead>
<tr>
<th>Prepositional Phrase</th>
<th>Prepositional Phrase (NP-theme PP-recipent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ThnLog/NDiff</td>
<td>120</td>
</tr>
<tr>
<td>RecPronBinP</td>
<td>46</td>
</tr>
<tr>
<td>ThmPronBinP</td>
<td>156</td>
</tr>
<tr>
<td>AEEWordProne</td>
<td>338</td>
</tr>
<tr>
<td>ThemeAnxncy</td>
<td>136</td>
</tr>
<tr>
<td>AgeDep</td>
<td>167</td>
</tr>
<tr>
<td>Overall</td>
<td>330</td>
</tr>
</tbody>
</table>

Proportion Prepositional Phrase (NP-theme PP-recipent)
How do these data compare to SAE?

- How do these data relate to the macro-regional “standard” American English?
  - The findings of Bresnan et al. (2007)

- Extracted all give tokens from their dataset:
  - Switchboard
    - N = 1,263 (180 NP PP, 14.3%)
  - Wall Street Journal
    - N = 403 (76 NP PP, 18.9%)

Bresnan et al. + AAE logistic regression model

### Model Coefficients

<table>
<thead>
<tr>
<th>Factor</th>
<th>Log-odds</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-0.4798</td>
<td>0.0037</td>
</tr>
<tr>
<td>Recipient = Pronoun (RecPronBin=&quot;p&quot;)</td>
<td>-3.1269</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Theme = Pronoun (ThmPronBin=&quot;p&quot;)</td>
<td>4.8766</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Theme - Recipient Log Weight Difference (ThmLogWtDiff)</td>
<td>-0.9969</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Modality = Written</td>
<td>0.1607</td>
<td>non-sig</td>
</tr>
<tr>
<td>ThmLogWtDiff * Modality = Written</td>
<td>-1.3106</td>
<td>0.0001</td>
</tr>
</tbody>
</table>

Model: C = 0.960, Somers’ D_{xy} = 0.919, Nagelkerke R^2 = 0.690

### Wald Statistics

<table>
<thead>
<tr>
<th>Factor</th>
<th>χ^2</th>
<th>d.f.</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recipient Pronomiaility (RecPronBin)</td>
<td>110.06</td>
<td>1</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Theme Pronomiaility (ThmPronBin)</td>
<td>237.67</td>
<td>1</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Theme - Recipient Log Weight Difference (ThmLogWtDiff) (Factor+Higher Order Factors)</td>
<td>104.00</td>
<td>2</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>All Interactions</td>
<td>16.19</td>
<td>1</td>
<td>0.0001</td>
</tr>
<tr>
<td>Modality (Factor+Higher Order Factors)</td>
<td>16.20</td>
<td>2</td>
<td>0.0003</td>
</tr>
<tr>
<td>All Interactions</td>
<td>16.19</td>
<td>1</td>
<td>0.0001</td>
</tr>
<tr>
<td>ThmLogWtDiff * Modality (Factor+Higher Order Factors)</td>
<td>16.19</td>
<td>1</td>
<td>0.0001</td>
</tr>
<tr>
<td>Total</td>
<td>366.42</td>
<td>5</td>
<td>&lt;0.0001</td>
</tr>
</tbody>
</table>
Differences between AAE data and SAE data

In closing

- We do not see here any evidence that the alternation in African American English is substantially different than it is in the macro-regional standard of US English – E.g., corpus and language variety do not obtain significance in statistical models

- The dative alternation does not seem to be a sociolinguistic indicator (Labov 1972b) at least for AAE

- If it does become socially meaningful, we will then expect the dative alternation to show different patterns within AAE and the macro-regional AE

References


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