The rapid grammaticalization of the English ish-construction: Syntactic change in apparent time

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N WAV 44, 10–23–15
Ish in English

- Historically a derivational morpheme creating adjectives
  - *childish, reddish, etc.*
- Meaning of somewhat/kind of
- Used productively, particularly with numerals
  - Arrive at *sevenish*, feeling *happyish*, a *New Yorkish* vibe, etc.
This Study’s *Ish*

- Used in sentences where no adjective/adjectival reading present
  1. I finished my homework *ish*.
     ‘I kind of finished my homework.’
  2. I live in Chicago *ish*.
     ‘I live kind of in Chicago.’
- Similar meaning to *-ish*
- Seems to modify VP/PP
Few studies (primarily formal) observe feature
(Bochnak and Csipak 2014, Duncan 2015)
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Several disagreements over data and analysis
Formal Approaches to *ish*

- Disagreement 1: question of what *ish* modifies
- B&C: modifies whole sentence \((\text{Bochnak and Csipak} \ 2014)\)
  - Restricted only by semantic content
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- Disagreement 1: question of what *ish* modifies
- B&C: modifies whole sentence *(Bochnak and Csipak 2014)*
  - Restricted only by semantic content

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CP
 /
/ I finished my paper  ish
```
**Formal Approaches to *Ish***

- Me: Merges above and modifies VP/PP (Duncan 2015)
  - Surface structure derived through movement
  - Grammatical constraints due to Freezing effects (Müller 1998)
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- Surface structure derived through movement
- Grammatical constraints due to Freezing effects (Müller 1998)
- Freezing: Already-moved constituents may not be extracted from
  - a. $\alpha_1 \ldots [\beta \ldots t_1 \ldots]_2$
  - b. $* \ldots \alpha_1 \ldots [\beta \ldots t_1 \ldots]_2 \ldots t_2$
Formal Approaches to *Ish*

- Me: Merges above and modifies VP/PP (Duncan 2015)
  - Surface structure derived through movement
  - Grammatical constraints due to Freezing effects

```
        QualP
       /   \
      VP/PP  QualP
    /   \    /   \    /   \  \\
 Δ   Ø  QualP Qual  VP/PP
    |   \  ish Δ
```

Disagreement 2: Differing grammaticality judgments

Extracted VP/PP objects ruled out as Freezing effects for me, fine in B&C
  ◦ */√It’s my homework that I finished ish.

Both find incompatibilities with some NPI–licensors
  ◦ Differing reasons: entirely semantic in B&C, semantic and c–command issue for me
  ◦ */#I didn’t write my paper ish.
Goal: Evaluate differing analyses of *ish*-construction
Goal: Evaluate differing analyses of *ish*–construction

Who uses *ish*?

What is the structure of *ish*–constructions?
Methodology

- Grammaticality judgment survey
Methodology

- Grammaticality judgment survey
- Honest reporting an issue? (Rickford 1975)
  - Seems to be below level of consciousness
- Other alternatives not viable
  - Corpus study finds 0 tokens in both Buckeye Corpus and COCA sample (Pitt et al. 2007, Davies 2012)
  - Difficult to elicit, and non-elicitation =/= non-use
Methodology

- Grammaticality judgment survey
- Five test sentences:
  - I live in Chicago ish.
  - I started my homework ish.
  - I didn’t write my paper ish.
  - Here’s my homework that I finished ish.
  - It’s New York that I’m moving to ish.
- Testing for acceptance of feature and grammatical constraints
Methodology

- Grammaticality judgment survey
- Sentences rated on three-point scale
  - 1: Sounds natural, and I know what it means.
  - 2: Sounds unnatural, but I can understand it.
  - 3: Sounds unnatural, and I have no idea what it means.
Methodology

- Conducted in Manhattan park
- Solicited white native English speakers
- 104 subjects, divided male/female
- Roughly three age groups
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- Solicited white native English speakers
- 104 subjects, divided male/female
- Roughly three age groups

<table>
<thead>
<tr>
<th>Speaker Gender/Age</th>
<th>Young 18-25</th>
<th>Middle 26-49</th>
<th>Old 50+</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>18</td>
<td>14</td>
<td>21</td>
<td>53</td>
</tr>
<tr>
<td>Female</td>
<td>28</td>
<td>13</td>
<td>10</td>
<td>51</td>
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<tr>
<td>Total</td>
<td>46</td>
<td>27</td>
<td>31</td>
<td>104</td>
</tr>
</tbody>
</table>
Methodology

- Conducted in Manhattan park
- Solicited white native English speakers
- 104 subjects, divided male/female
- Roughly three age groups
- Part of larger 5–10 minute survey
- Collected birthplace, education, political affiliation
Overall Results

- About half of respondents accepted plain sentences
- Far fewer accepted extracted/negated sentences
- Extracted/negated sentences received far more 3’s than plain sentences
Overall Results

Overall Grammaticality Judgments by Sentence

- I live in Chicago ish.
- I started my homework ish.
- I didn't write my paper ish.
- Here's my homework that I finished ish.
- It's New York that I'm moving to ish.

1 (Accepted)  2  3 (Rejected completely)
Overall Results by Age Group

- Majority of younger/middle groups accepted PP sentence
- Majority of younger group accepted VP sentence
- Group differences significant ($\chi^2$ test, $p<.05$)
Overall Results by Age Group

Acceptance of "I live in Chicago ish" by Age Group

- Young
- Middle
- Old

p=.039
Overall Results by Age Group

Acceptance of "I started my homework ish" by Age Group

- Young
- Middle
- Old

Accepted: Blue
Rejected: Orange

p = .032
Overall Trend

- Plain sentences increase in acceptance over time
- Extracted/negated sentences remain unaccepted over same period
Acceptance of Ish Sentences by Age

Proportion Respondents Accepting Sentence

Age of Respondents

- Heres my homework that I finished Ish
- I didnt write my paper Ish
- I live in Chicago Ish
- I started my homework Ish
- It's New York that Im moving to Ish
Logistic Regression

- Mixed effects model
- Fixed factors of age, sentence type, gender
- Random factor of interviewer
- Age and sentence type significant
# Logistic Regression

<table>
<thead>
<tr>
<th>Factor</th>
<th>Estimate (β)</th>
<th>p–value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept (modifying PP)</td>
<td>0.865134</td>
<td>0.0994</td>
</tr>
<tr>
<td>Negation</td>
<td>-1.942741</td>
<td>7.27E–08</td>
</tr>
<tr>
<td>Extract VP obj.</td>
<td>-1.720599</td>
<td>6.12E–07</td>
</tr>
<tr>
<td>Extract PP obj.</td>
<td>-2.220646</td>
<td>6.49E–09</td>
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<tr>
<td>modifying VP</td>
<td>-0.469227</td>
<td>0.12</td>
</tr>
<tr>
<td>Agenum</td>
<td>-0.031088</td>
<td>9.93E–06</td>
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</tbody>
</table>
Interim Summary

- Who uses *ish*?
  - Age of respondent significant predictor of acceptance
  - Younger speakers of all backgrounds accepted *ish*-constructions
  - Points to change in progress within American English
What is the structure of *ish*-constructions?

- Sentence type is a significant predictor of acceptance
- Most speakers—even those who accept *ish*-constructions—reject extracted/negated sentences
- Appear to be grammatical constraints → more complex structure than modifying sentence (my analysis)
Further thoughts

- Acceptance of PP appears to lead acceptance of VP in apparent time

<table>
<thead>
<tr>
<th>26–49 Responses by Sentence Type</th>
<th>Accepted</th>
<th>Rejected</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modifies VP</td>
<td>10</td>
<td>17</td>
<td>27</td>
</tr>
<tr>
<td>Modifies PP</td>
<td>16</td>
<td>11</td>
<td>27</td>
</tr>
</tbody>
</table>
Further thoughts

- Acceptance of PP appears to lead acceptance of VP in apparent time (about 15 years)
Acceptance of Ish Sentences by Age

Proportion Respondents Accepting Sentence

Age of Respondents

ishSen
- Heres my homework that I finished ish
- I didn't write my paper ish
- I live in Chicago ish
- I started my homework ish
- Its New York that Im moving to ish
Further thoughts

- Acceptance of PP appears to lead acceptance of VP in apparent time (about 15 years)
- Acceptance of extracting VP object appears to be rising
Acceptance of Ish Sentences by Age

Proportion Respondents Accepting Sentence

Age of Respondents

ishSen
- Heres my homework that I finished Ish
- I didnt write my paper Ish
- I live in Chicago Ish
- I started my homework Ish
- Its New York that Im moving to Ish
Further thoughts

- **Conditional inference trees** (Hothorn et al. 2015)
  - Recursive binary partitioning algorithm
  - Finds covariate with strongest association to variable
    - Split data into two subgroups based on covariate
    - Repeat until potential covariates independent of variable
Further thoughts

- Conditional inference trees (Hothorn et al. 2015)
  - Treat single sentence as dependent variable
  - Other sentences are potential predictors of acceptance
- Acceptance of negation strongly predicts acceptance of VP object extraction
Sentence type predictors of extracting VP object
Discussion

- Most advanced users accept every sentence
  - Consistent with modification of CP (B&C approach)
- Acceptance of VP/PP leads CP
- Acceptance of PP leads VP
- Derivational morpheme precedes construction
Process moves leftward into main clause, up the tree (Roberts and Roussou 2003)
Ex. English modals, complementizer *that*
Grammaticalization

CP
  C  TP
  T  vP
  v  VP
  VP  PP
  V  DP  P  DP
  Α
Grammaticalization

3 CP

C TP

C T vP

v vP

VP PP

V DP P DP

Δ △
Discussion

- Phrase modifiable by *ish* moving left into main clause, then up the tree
- *Ish* is undergoing rapid grammaticalization
  - Over a few generations in apparent time
  - Deriving Adj → Modifying PP → Modifying VP → Modifying CP
Acknowledgements

- Renée Blake, Isaac Bleaman, Marie–Eve Bouchard, Zack Jaggers
References


Duncan, Daniel. 2015. A Freezing approach to the *ish*-construction in English. Poster presented at PLC 39.


Theijssen, Daphne, Hans van Halteren, Tip Boonpiyapat, Anna Lohfink, Bas Ruiter, and Hans Westerbeek. 2010. To *ish* or not to *ish*? In Proceedings of the 20th Meeting of Computational Linguistics in the Netherlands, 139-54.