USING INTENSIFIER-ADJECTIVE BI-GRAMS TO INVESTIGATE MECHANISMS OF CHANGE

Dr. Martin Schweinberger
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Habilitation (in progress)

Acquisition, Variation, and Diachronic Development of Intensification in English

(1) yeah... just it would make it so awkward eh you know (ICE-NZ S1A-001:1$M)

(2) um... sara’s got a really nice sleeveless green... you know coat jacket (ICE-NZ S1A-002:1$Q)

(3) she was a very nervous sort of a woman (ICE-NZ S1A-018:1$A)
Intensification

Intensification is related to the semantic category of *degree* (degree adverbs) and ranges between very low intensity (downtoning) and very high (amplifiers) (Quirk et al. 1985: 589–590).

- **Amplifiers** (Tagliamonte 2008)
  - Maximizers (e.g. *completely*)
  - Boosters (e.g. *very much*)
- **Downtoners**
  - Approximators (e.g. *almost*)
  - Compromisers (e.g. *more or less*)
  - Diminishers (e.g. *partly*)
  - Minimizers (e.g. *hardly*)
Previous Research

- Intensification...
  - major area of grammatical change
    (cf. Brinton and Arnovick 2006: 441)
  - crucial for the “social and emotional expression of speakers” (Ito and Tagliamonte 2003: 258)
  - teenage talk and young(ish) speakers
    (Bauer and Bauer 2002; Macaulay 2006)
  - female speakers (Tagliamonte 2006, 2008; D’Arcy 2015)
  - Intensifying *really* replaces *very* (lexical replacement)
Previous study of intensification in New Zealand English
(D’Arcy 2015)

(D’Arcy 2015: 468)
Q1:

Do the ICE data mirror D’Arcy’s findings (*really* replacing *very*)?
Data Processing

- Split spoken ICE NZ data into utterances
- Removal of meta information
- Part–of-speech tagging
- Retrieving adjectives (PoS–tag JJ)
- Determining whether adjective is preceded by an intensifying adverb (PoS–tag RB)
Data Processing

- Removal of
  - negated adjectives
  - comparative and superlative forms
  - non–intensifiable forms
    (categorical, e.g. nationalities | locations: *Asian, Asia*)
- Manual cross–evaluation of automated classification
- Adding speaker information (age, sex, etc.).
### Data Summary: ICE-NZ data

<table>
<thead>
<tr>
<th>Age</th>
<th>Sex</th>
<th>Speakers (N)</th>
<th>Adj. (N)</th>
<th>Int. (N)</th>
<th>Int. (%)</th>
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## Data Summary: Intensifiers ICE-NZ

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Figure: intensifiers : age (ICE NZ)
Q$_2$: Do we find the same tendency (*really* replacing *very*) in the Irish ICE data?
## Data Summary: ICE-Ireland data

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## Data Summary: Intensifiers ICE-Ireland

<table>
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Using intensifier-adjective bi-grams to investigate mechanisms of change

Results

Intensifiers across Age Cohorts

Figure: intensifiers : age (ICE IRE)

Figure: intensifiers : age (ICE NZ)

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Q₃:

What sets successful innovations (really in NZE) apart from non-successful innovations (really in IrE)?
### Collocations by Age

#### NZE

<table>
<thead>
<tr>
<th>Age</th>
<th>Adjective</th>
<th>Intensifier</th>
<th>OddsRatio</th>
<th>Bonf.</th>
<th>Corr.</th>
<th>Sig</th>
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#### IRE

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Using intensifier-adjective bi-grams to investigate mechanisms of change

### Results

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</table>

- **Increasing trend**
- **Receding trend**

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## Results

<table>
<thead>
<tr>
<th>Adjective</th>
<th>Intensifier</th>
<th>Age</th>
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</table>

*increasing trend*  
*receding trend*
Adjective types by intensifier and age

Figure: intensifier types : adjective types (ICE Ire)

Figure: intensifier types : adjective types (ICE NZ)
Q₄:

Do *really* and *very* exhibit similar collocational profiles in NZE but dissimilar profiles in IrE?
Using intensifier-adjective bi-grams to investigate mechanisms of change

Figure: Correspondence of intensifier and adjective types (IrE)
Figure: Correspondence of intensifier and adjective types (NZE)
Summary, Problems & Outlook
NZE

- intensifying very is being replaced by really which declines almost linearly with age (incoming variant | innovation)
- collocation pattern with many | high frequency adjectives (good) in NZE a likely cause for the dominance of really

IrE

- similar trajectory to NZE but the replacement of very by really appears to have stopped mid-range
- collocations are more varied than in NZE
- various contestants for dominance
NZE and IrE

- both intensifier systems are currently undergoing change but while *really* replaces *very* in NZE, the struggle for dominance continues in IrE.

- successful variants collocate with frequent adjectives and thus block other intensifiers from taking over.

- *really* has become successful in NZE because . . .
  - it increasingly co-occurred with more adjective types
  - it “stole” highly frequent collocates from *very* (good)
Problems

- small data sets(!)
- non-intensifiers are still present in the data (*too, quite*)
- no differentiation between boosters and maximizers
- disregard of (semantic) restrictions|constraints on intensifier use
- disregard of positioning (predicative : attributive)

Outlook

- further investigation of collocational patterns (across age groups) using vector space models
Thank you so, really, very much!


USING INTENSIFIER-ADJECTIVE BI-GRAMS TO INVESTIGATE MECHANISMS OF CHANGE

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APPENDIX
## Sig. collocations (NZE)

- Testing whether a certain intensifier correlates significantly with the occurrence of a particular adjective
- 25,424 Fisher’s Exact tests (with Bonferroni correction)

<table>
<thead>
<tr>
<th>Intensifier</th>
<th>Adjective</th>
<th>OddsRatio</th>
<th>Bonf. Corr.</th>
<th>Sig</th>
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Sig. collocations (IrE)

- Testing whether a certain intensifier correlates significantly with the occurrence of a particular adjective
- 29,136 Fisher’s Exact tests (with Bonferroni correction)

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<th>Intensifier</th>
<th>Adjective</th>
<th>OddsRatio</th>
<th>Bonf. Corr.</th>
<th>Sig</th>
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