

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

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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

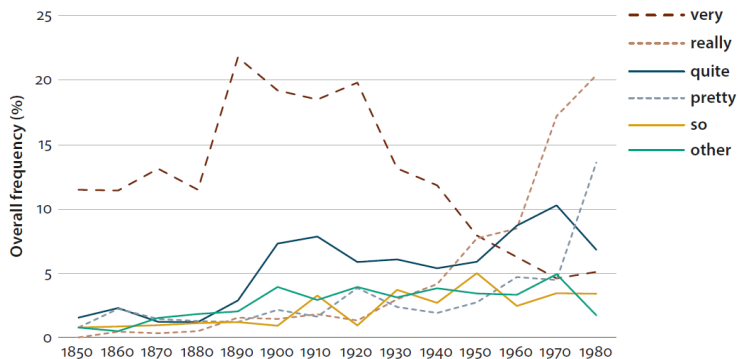
Intensification is related to the semantic category of *degree* (degree adverbs) and ranges between very low intensity (downtoning) and very high (amplifiers) (Quirk et al. 1985: 589–590).

- ▶ 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)
(cf. D’Arcy 2015; Ito and Tagliamonte 2003; Tagliamonte 2005, 2008)

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

Age	Sex	Speakers (N)	Adj. (N)	Int. (N)	Int. (%)
16-24	female	39	1102	140	12.7
16-24	male	29	811	81	10.0
25-39	female	23	629	65	10.3
25-39	male	16	481	35	7.3
40-49	female	16	509	60	11.8
40-49	male	9	172	7	4.1
50+	female	7	259	27	10.4
50+	male	6	236	25	10.6
Total		145	4199	440	10.5

Data Summary: Intensifiers ICE-NZ

Intensifier	N	%	Int. (%)
∅ Intensification	3759	89.52	
really	150	3.57	34.09
very	96	2.29	21.82
so	66	1.57	15.00
too	34	0.81	7.73
pretty	29	0.69	6.59
real	18	0.43	4.09
well	7	0.17	1.59
absolutely, right, totally	5	0.36	3.42
bloody	4	0.10	0.91
crazy, particularly	2	0.10	0.90
actually, badly, completely, definitely, dread- fully, enormously, entirely, excruciatingly, fuck- ing, fully, horrendously, incredibly, obviously, purely, shocking, true, wicked	1	0.34	3.91
Total	4199	10.48	100

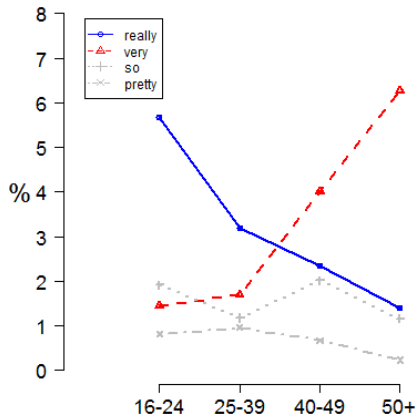


Figure: intensifiers : age (ICE NZ)

Q₂:

Do we find the same tendency (*really* replacing *very*)
in the Irish ICE data?

Data Summary: ICE-Ireland data

Age	Sex	Speakers (N)	Adj. (N)	Int. (N)	Int. (%)
19-25	female	72	1072	96	8.22
19-25	male	8	182	8	4.21
26-33	female	51	790	89	10.13
26-33	male	4	48	5	9.43
34-49	female	8	145	28	16.18
34-49	male	6	187	18	8.78
50+	female	14	238	18	7.03
50+	male	9	133	7	5
Total		172	2795	269	9.6

Data Summary: Intensifiers ICE-Ireland

Intensifier	N	%	Int. (%)
∅ Intensification	2526	90.38	
very	78	2.79	29.00
really	58	2.08	21.56
so	41	1.47	15.24
too	28	1	10.41
quite	21	0.75	7.81
absolutely	8	0.29	2.97
real	7	0.25	2.60
fairly, pretty	4	0.28	1.49
awfully, bloody, exactly, pure, totally	2	0.35	0.74
completely, extra, extremely, fierce, mega, perfectly, proper, severely, terribly, truly	1	0.4	0.37
Total	2795	9.62	100

Intensifiers across Age Cohorts

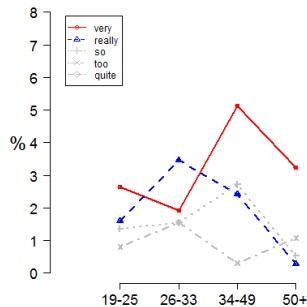


Figure: intensifiers : age (ICE IRE)

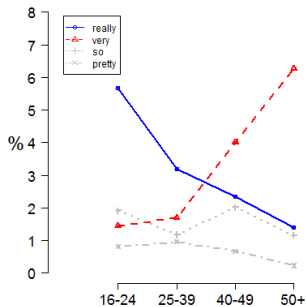


Figure: intensifiers : age (ICE NZ)

Q₃:

What sets successful innovations (*really* in NZE)
apart from non-successful innovations (*really* in IrE)?

Collocations by Age

NZE

Age	Adjective	Intensifier	OddsRatio	Bonf. Corr.	Sig
16-24	really	good	5.44		p<.001
50+	very	difficult	20.07		p<.001
50+	very	good	4.72		p<.001
50+	very	strong	21.33		p<.01

IRE

Age	Adjective	Intensifier	OddsRatio	Bonf. Corr.	Sig
19-25	really	bad	35.45		p<.001
34-49	absolutely	gorgeous	1132.32		p<.001
34-49	highly	critical	3744.11		p<.001

NZE Adjective	Intensifier	Age			
		16-24	25-39	40-49	50+
difficult	really	0	2	0	0
good	really	27	9	2	3
hard	really	5	3	0	1
important	really	0	1	1	2
interesting	really	1	2	1	2
little	really	0	0	0	0
nice	really	7	1	1	1
strong	really	0	0	0	0
difficult	very	0	4	5	12
good	very	5	15	20	23
hard	very	0	3	4	4
important	very	2	6	4	8
interesting	very	1	0	2	8
little	very	0	5	4	11
nice	very	3	2	5	3
strong	very	0	2	4	8
difficult	other	2	3	3	2
good	other	8	6	6	6
hard	other	5	2	2	0
important	other	1	0	2	2
interesting	other	1	1	0	1
little	other	0	0	1	1
nice	other	0	0	0	0
strong	other	0	3	0	0

 increasing trend
 receding trend

IRE	Adjective	Intensifier	Age			
			19-25	26-33	34-49	50+
bad	really	really	7	4	1	1
different	really	really	1	0	0	0
difficult	really	really	0	0	0	0
good	really	really	4	3	4	0
important	really	really	0	0	3	0
nice	really	really	2	3	0	0
strong	really	really	0	0	0	0
sure	really	really	0	0	0	0
bad	very	very	2	0	0	2
different	very	very	0	0	4	3
difficult	very	very	1	0	7	4
good	very	very	5	2	8	12
important	very	very	1	0	4	7
nice	very	very	5	0	6	5
strong	very	very	0	0	4	2
sure	very	very	0	1	1	0
bad	other	other	3	3	2	1
different	other	other	1	1	2	4
difficult	other	other	0	0	1	0
good	other	other	4	3	2	3
important	other	other	0	0	3	1
nice	other	other	2	2	1	0
strong	other	other	0	1	3	1
sure	other	other	0	1	1	6

 increasing trend
 receding trend

Adjective types by intensifier and age

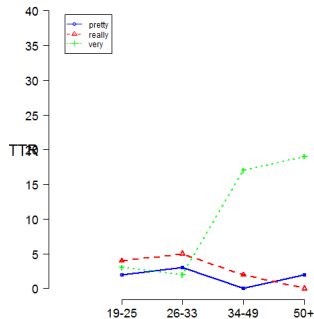


Figure: intensifier types :
adjective types (ICE Ire)

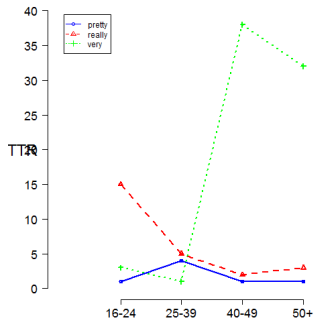


Figure: intensifier types :
adjective types (ICE NZ)

Q₄:

Do *really* and *very* exhibit similar collocational profiles in NZE
but dissimilar profiles in IrE?

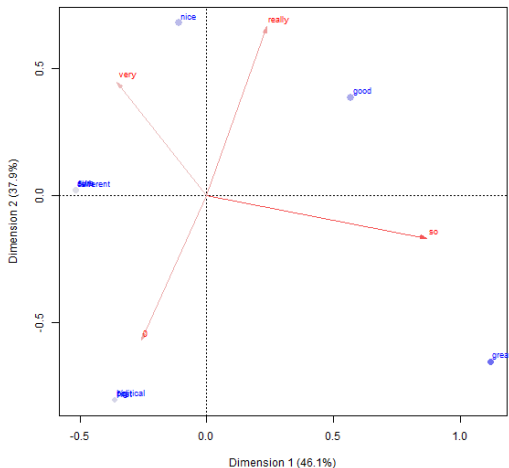


Figure: Correspondence of intensifier and adjective types (IrE)

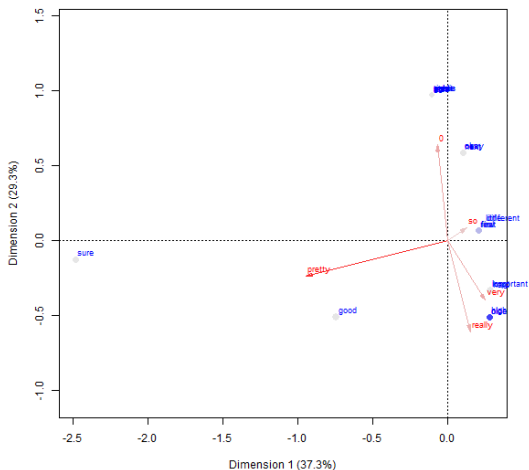


Figure: Correspondence of intensifier and adjective types (NZE)

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!

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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)

Intensifier	Adjective	OddsRatio	Bonf. Corr.	Sig
really	good	6.80		p<.001
very	careful	53.78		p<.01
very	difficult	11.56		p<.001
very	good	3.11		p<.001
very	important	5.53		p<.001
very	large	7.04		p<.01
very	last	0		p<.01
very	new	0		p<.001
very	strong	11.54		p<.001

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)

Intensifier	Adjective	OddsRatio	Bonf. Corr.	Sig
completely	unaware	3801.65		p<.001
highly	critical	798.33		p<.001
really	bad	42.27		p<.001
too	bad	30.06		p<.001
too	expensive	209.17		p<.001
very	difficult	20.60		p<.001
very	good	4.49		p<.001
very	nice	6.27		p<.001
well	aware	1908.75		p<.001