

VERY GOOD, REALLY GREAT,
ABSOLUTELY AMAZING

SOCIOLINGUISTIC VARIATION IN NEW ZEALAND'S INTENSIFIER SYSTEM

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Habilitation project

*Acquisition, Variation, and Diachronic Development of
Intensification in English*

- ▶ synchronic quantitative corpus-based study
- ▶ adjectival intensification in New Zealand English (NZE)
- ▶ based on the New Zealand component of the
International Corpus of English (ICE-NZ)

Setting the Stage

Data and Methodology

Results

Summary & Discussion

Conclusion & Outlook

References

INTENSIFICATION

Examples

- (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*)
- ▶ Downloners
 - ▶ 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)

Previous Research

- ▶ Ongoing changes are accompanied by ...
 - ▶ gender and age differences (apparent time construct)
 - ▶ differences in the syntactic function (predicative vs attributive)
 - ▶ the semantic type of the modified adjective
 - ▶ emotional value of the modified adjective (emotional vs non-emotional)
- ▶ Intensifying *really* replaces *very* (lexical replacement)
(cf. D'Arcy 2015; Ito and Tagliamonte 2003; Tagliamonte 2005, 2008)

Research Question

Q₁:

Is the NZE Intensifier system currently undergoing change?

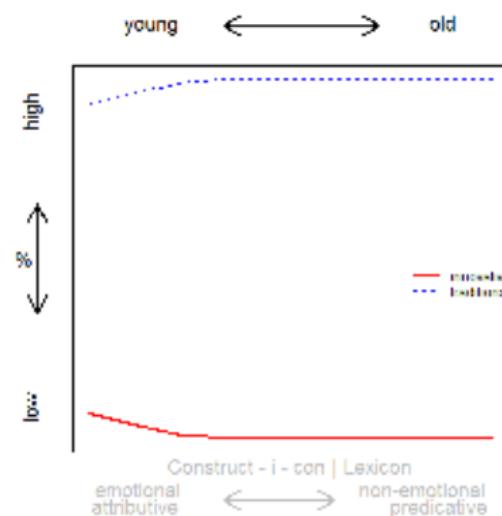
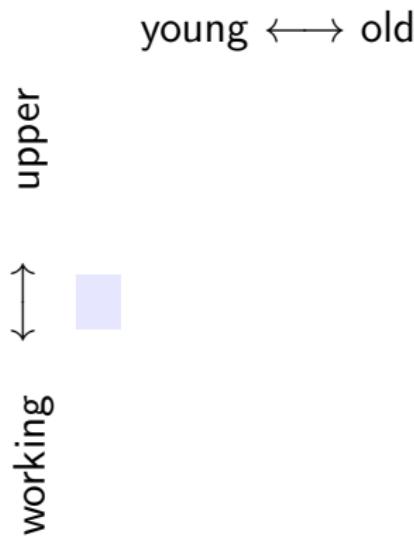
VARIATIONIST THEORY

HOW DO INNOVATIVE FEATURES SPREAD?

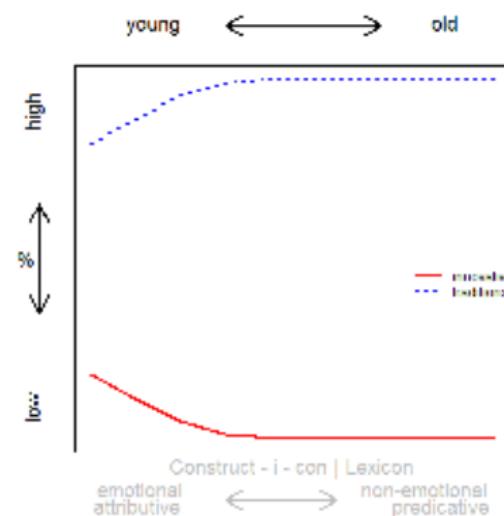
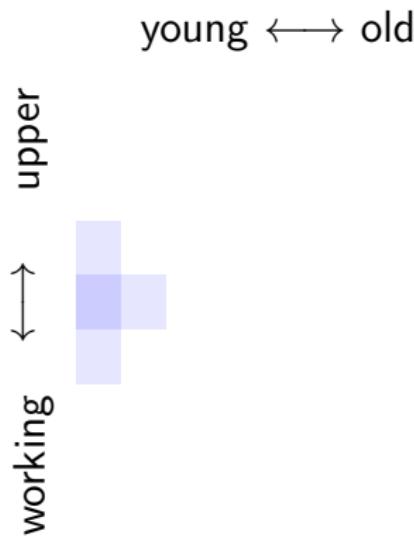
Variationist Sociolinguistics

- ▶ Language is not homogeneous: variation is ubiquitous
 - ▶ Social factors : language use
 - ▶ Linguistic variation not random
 - ▶ Systematic correlation between certain social factors (age, gender, class, ethnicity, etc.) and language use
- ▶ Linguistic differentiation ↔ social stratification

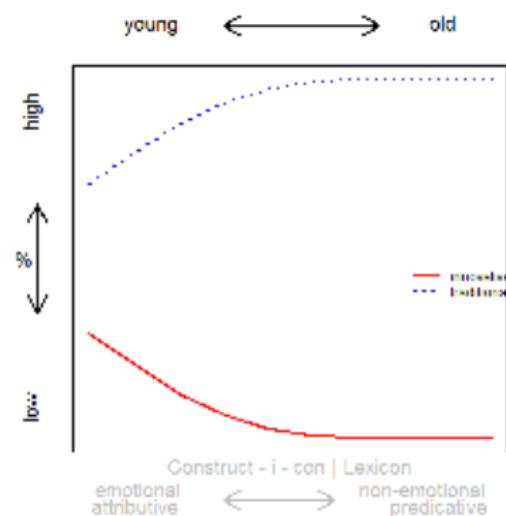
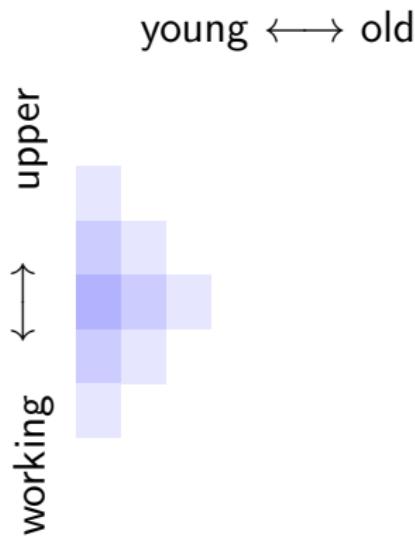
Diffusion of Innovations



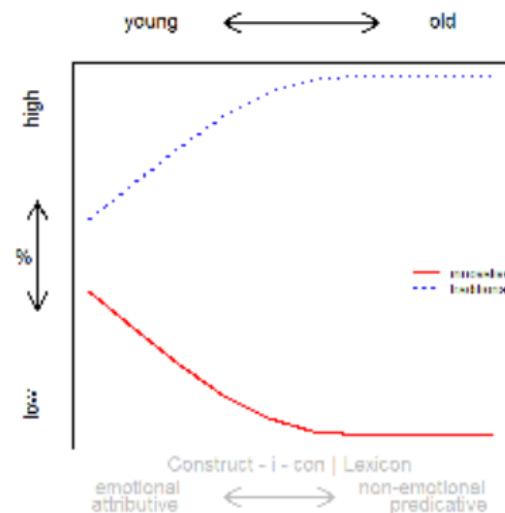
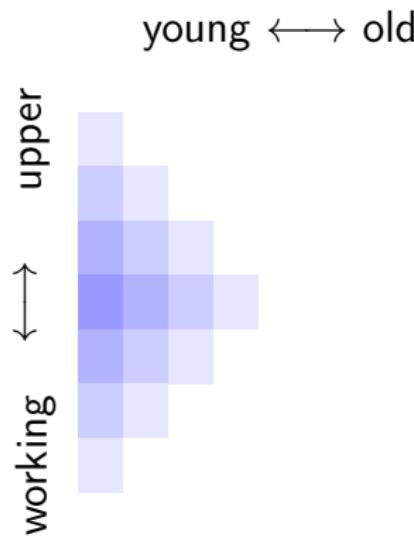
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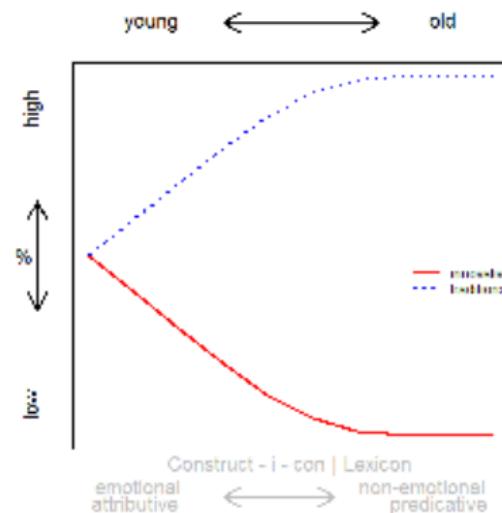
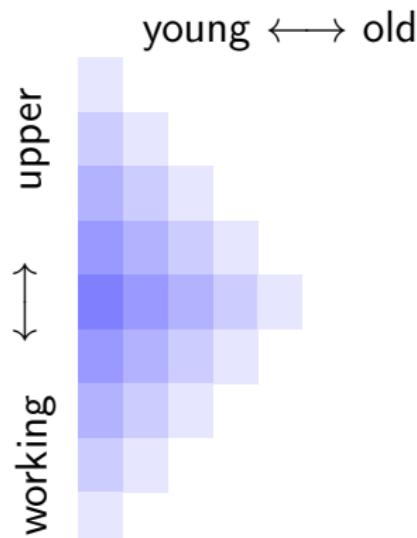
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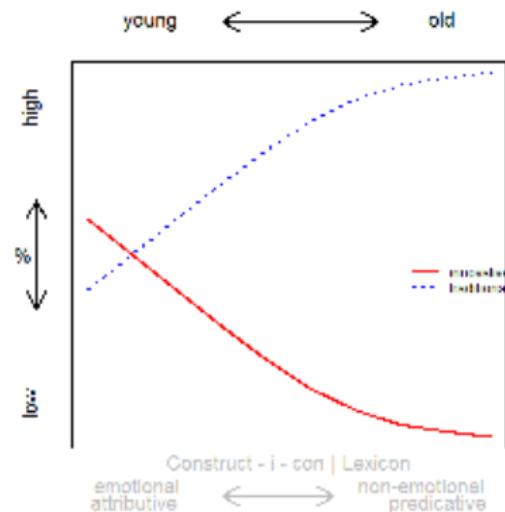
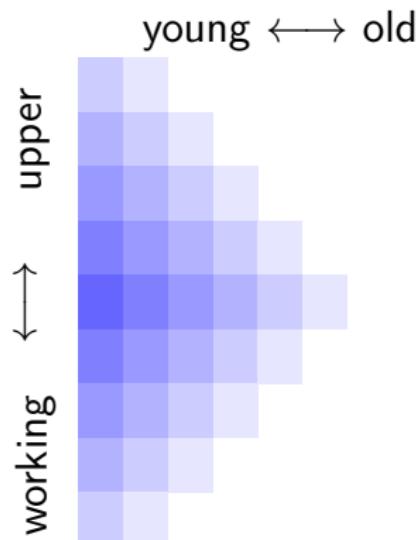
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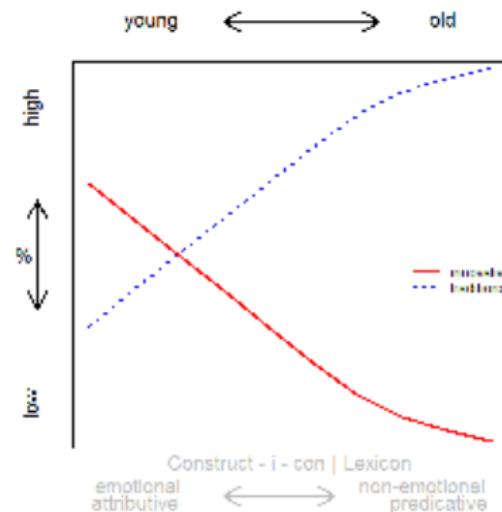
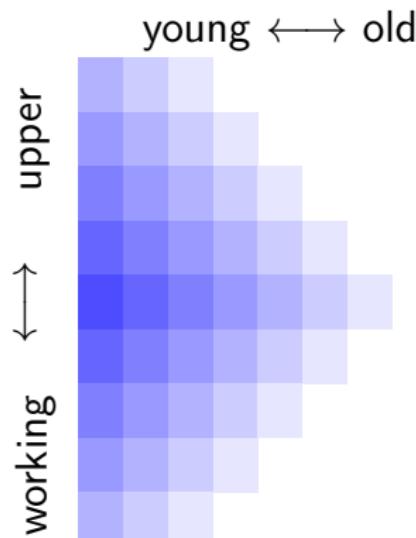
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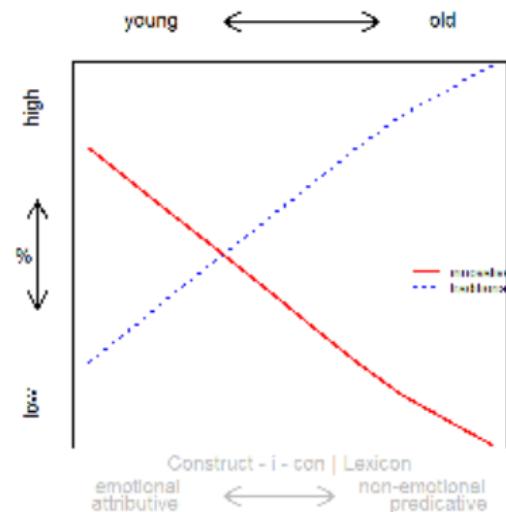
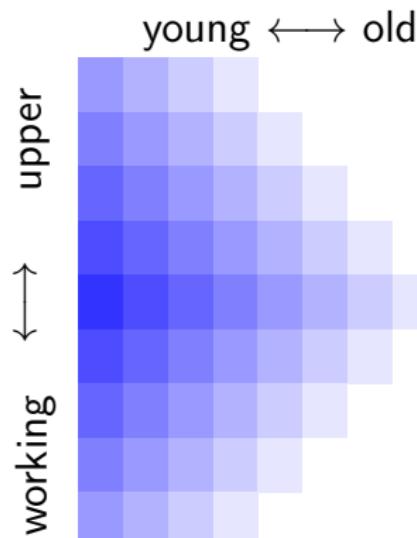
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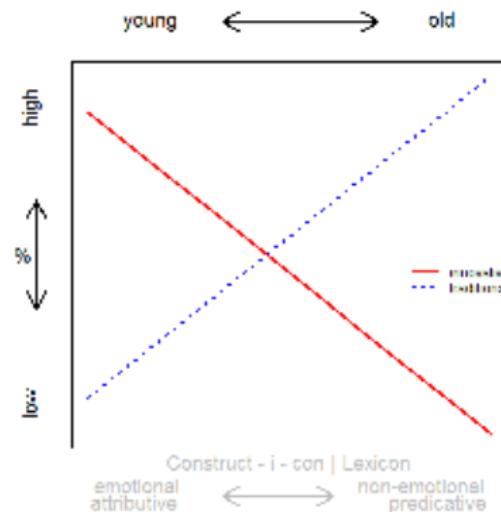
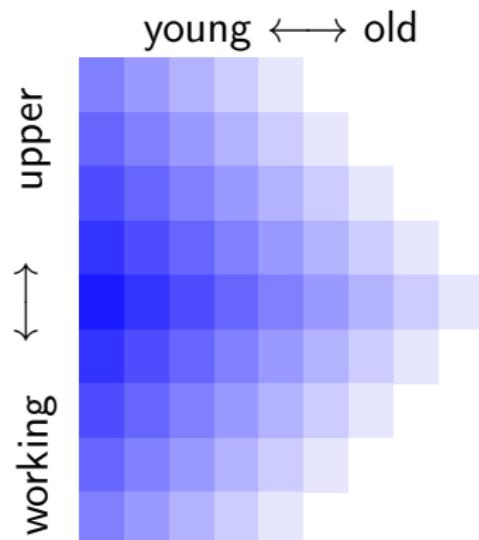
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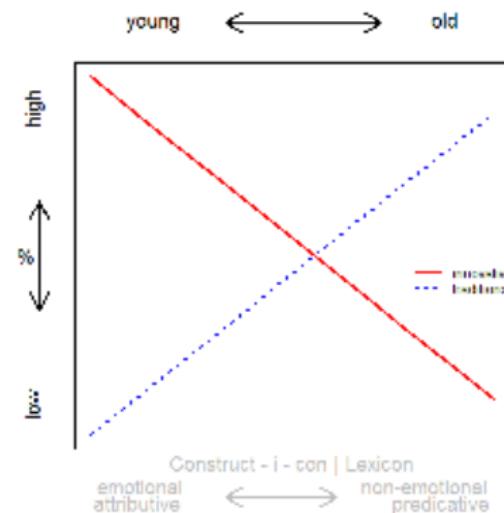
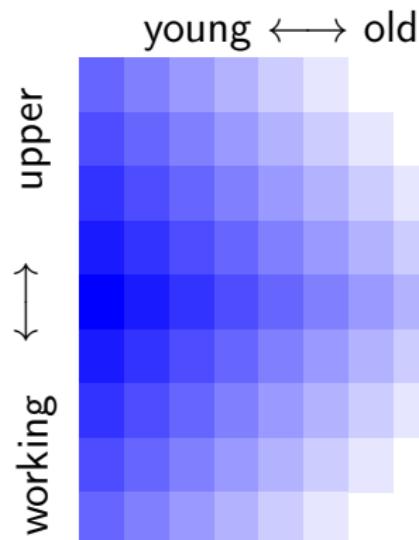
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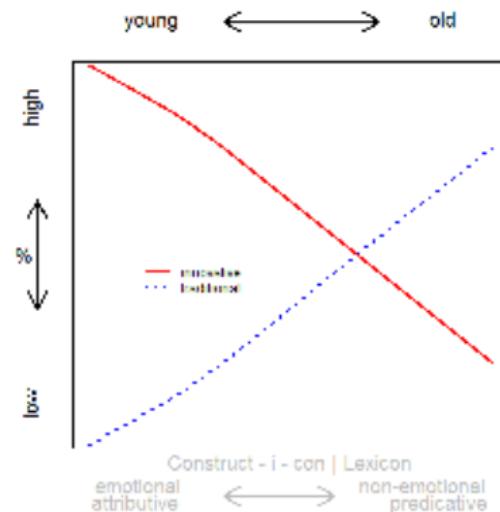
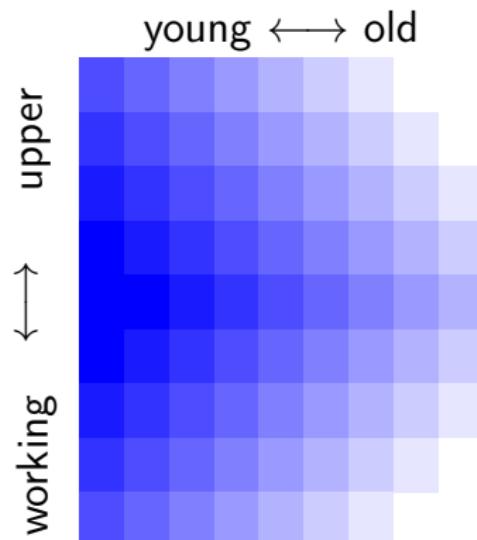
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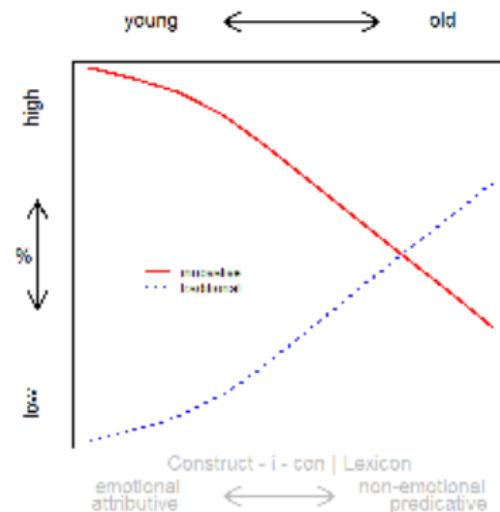
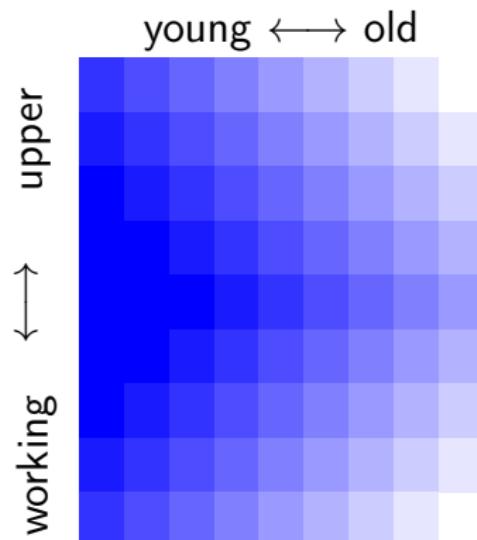
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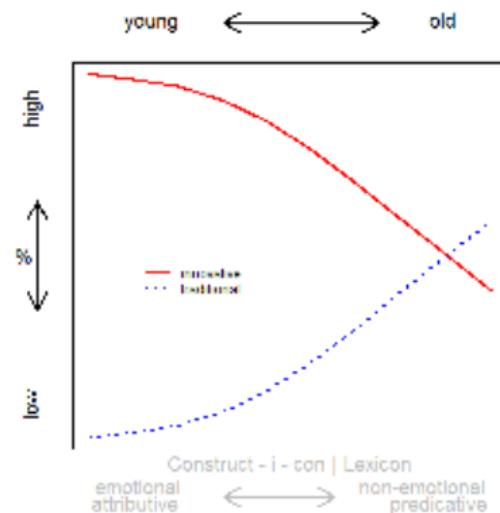
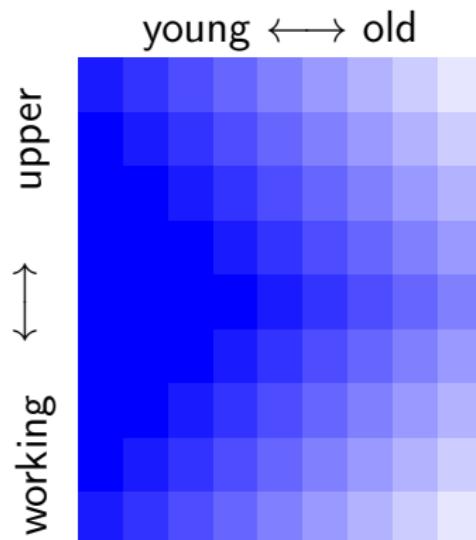
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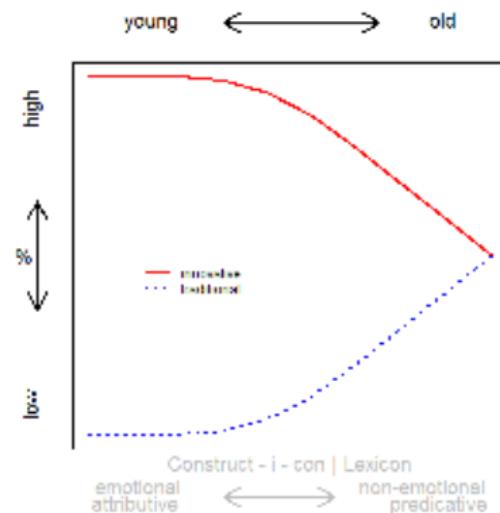
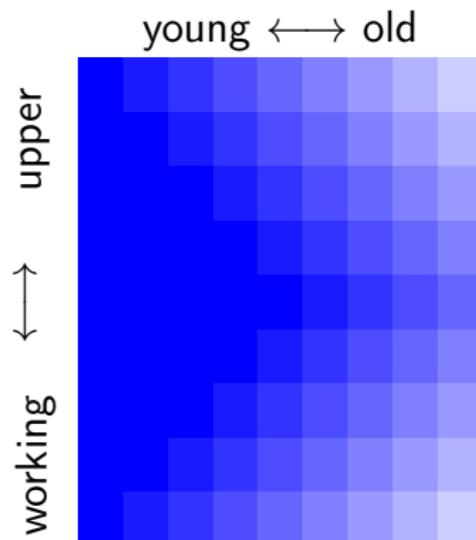
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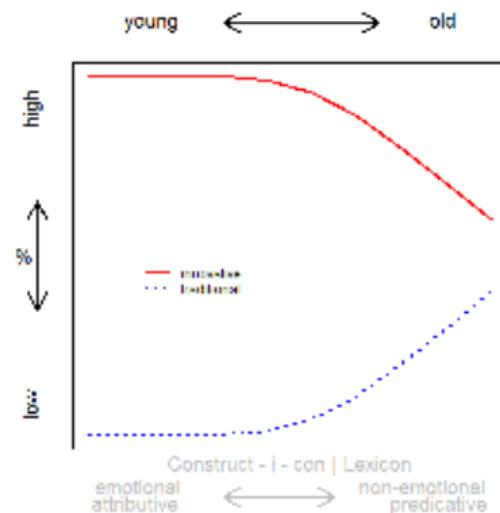
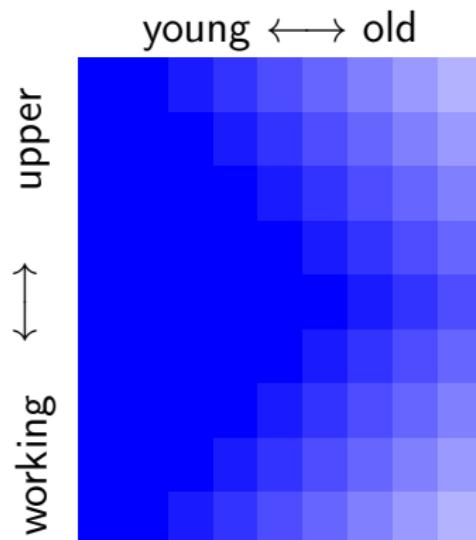
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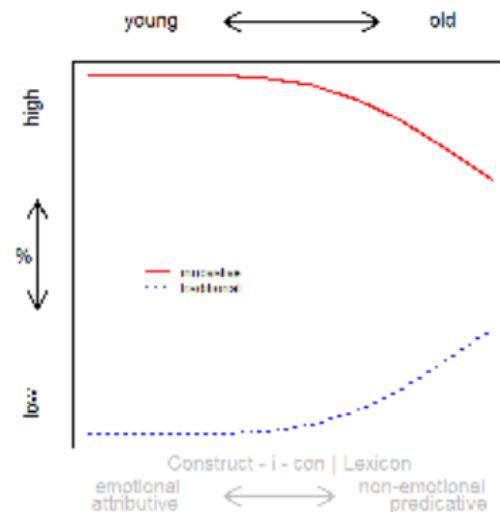
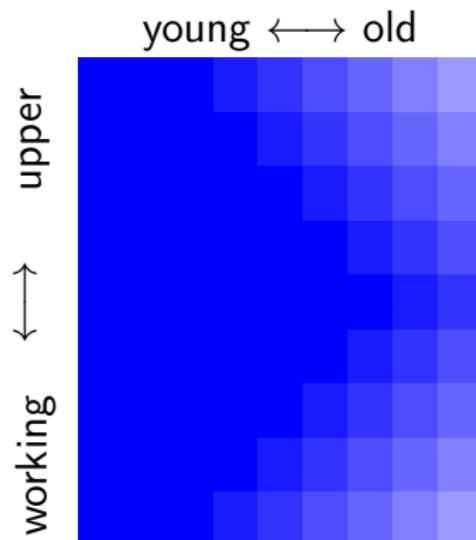
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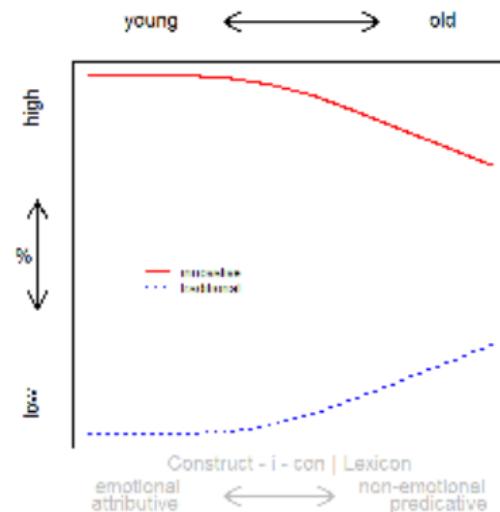
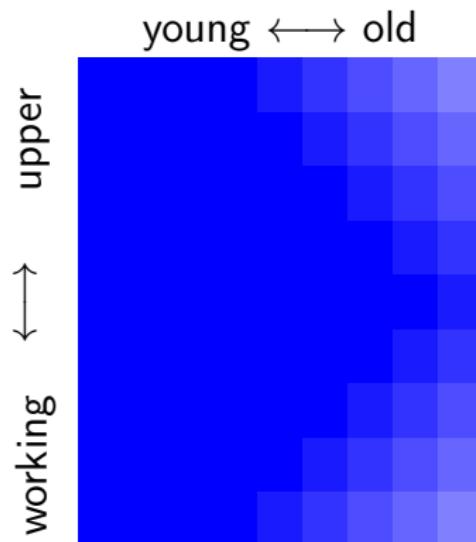
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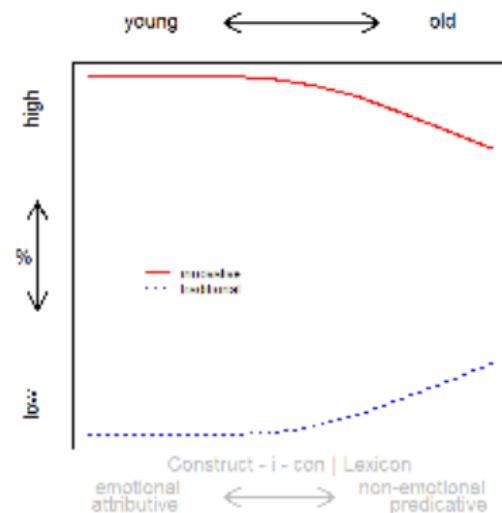
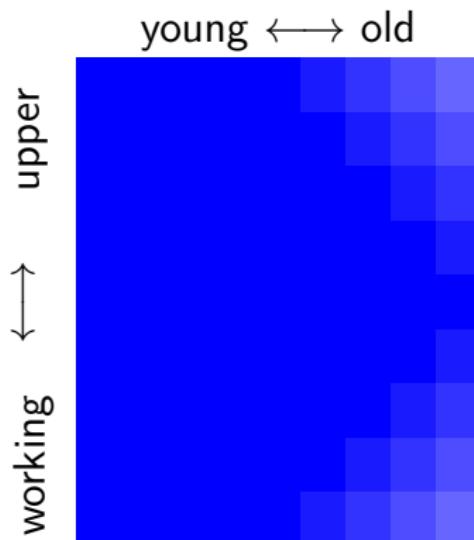
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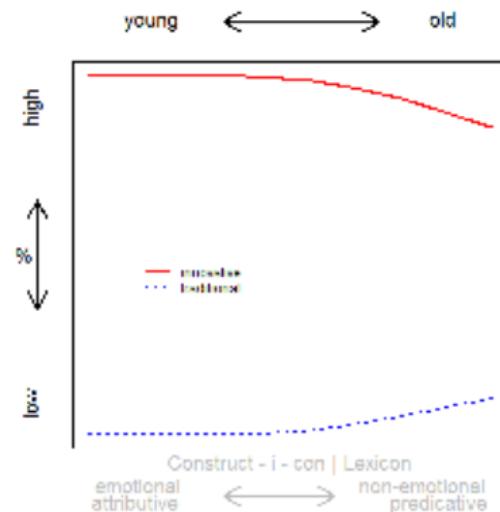
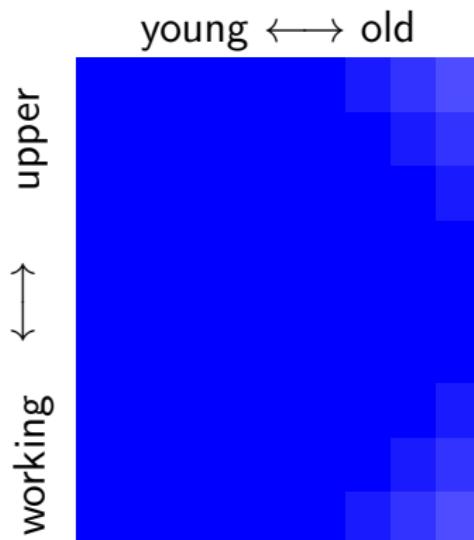
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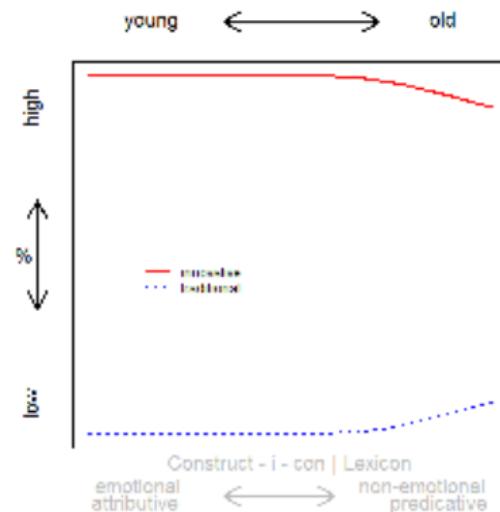
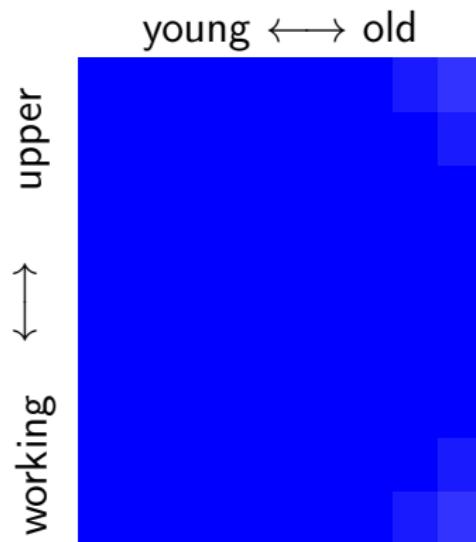
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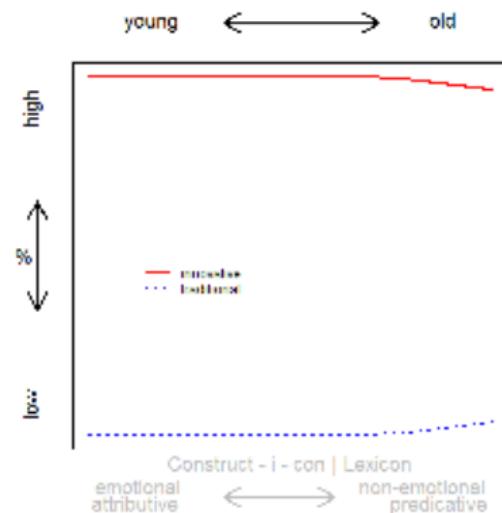
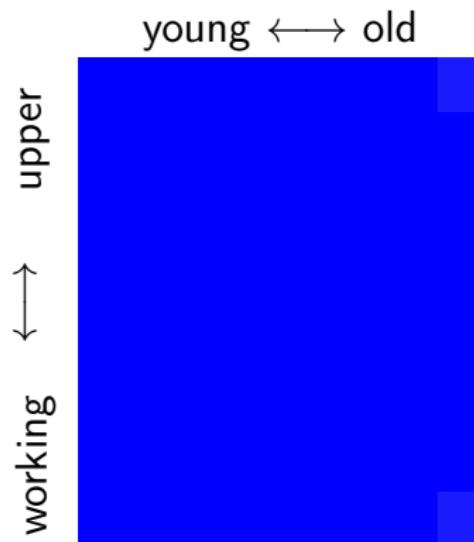
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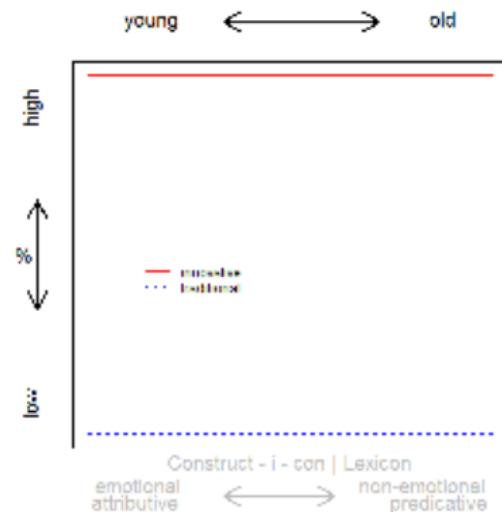
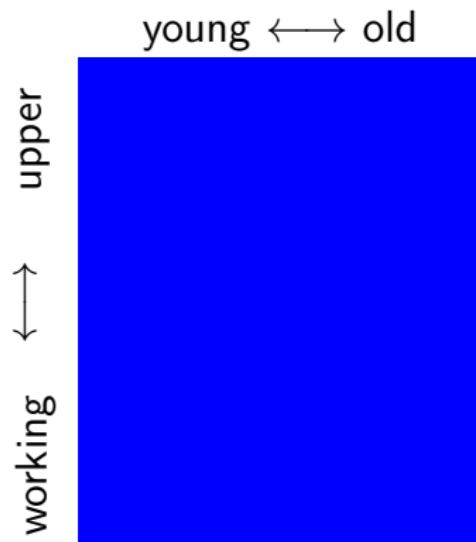
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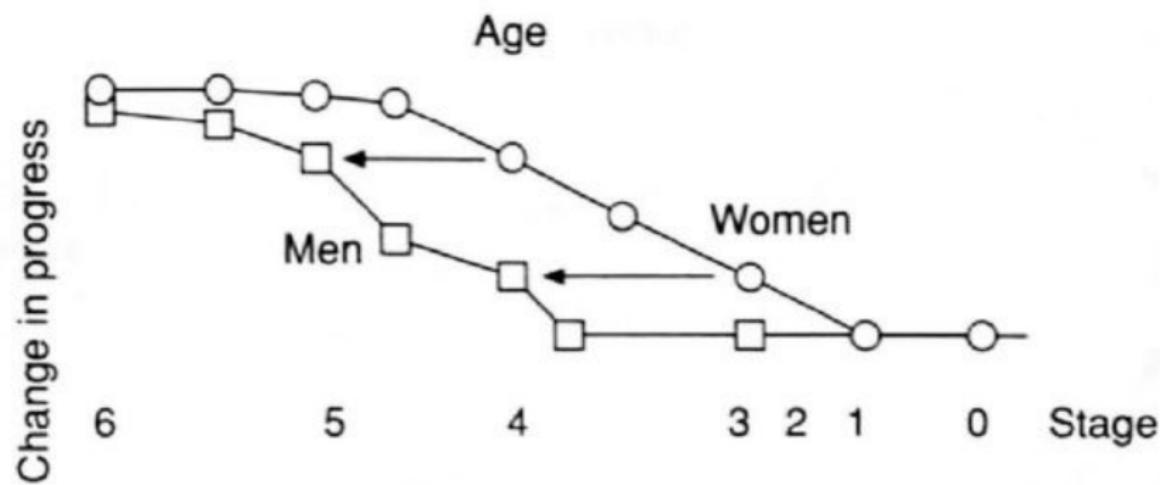
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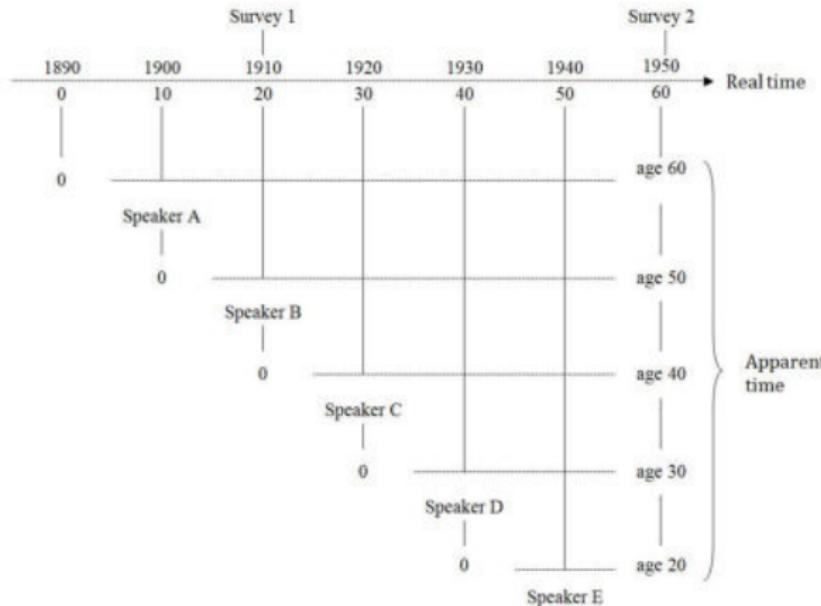


Gender and Language Change



(cf. Labov 1994: 65)

Real and Apparent Time



(cf. Downes 1998: 238)

ICE NEW ZEALAND

ICE New Zealand

New Zealand component of the *International Corpus of English* (Bauer et al. 1999)

- ▶ released in 1999 (*The Victoria University of Wellington*)
- ▶ consists of one million words (600,000 spoken and 400,000 written)
- ▶ representing diverse spoken and written text types
- ▶ here only private dialogues (200,000 words)

DATA PROCESSING

Data Processing

- ▶ Split spoken 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

- ▶ Determining the syntactic type of adjective (predicative vs attributive (if followed by NN* tag))
- ▶ Removal of
 - ▶ negated adjectives
 - ▶ comparative and superlative forms
 - ▶ non-intensifiable forms
(categorical, e.g. nationalities | locations: *asian, Asia*)
- ▶ Sentiment Analysis
determines the emotional value of adjectives based on the *Word-Emotion Association Lexicon* (Mohammad and Turney 2013)
- ▶ Manual cross-evaluation of automated classification
- ▶ Adding speaker information (age, sex, etc.).

DATA SUMMARY

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

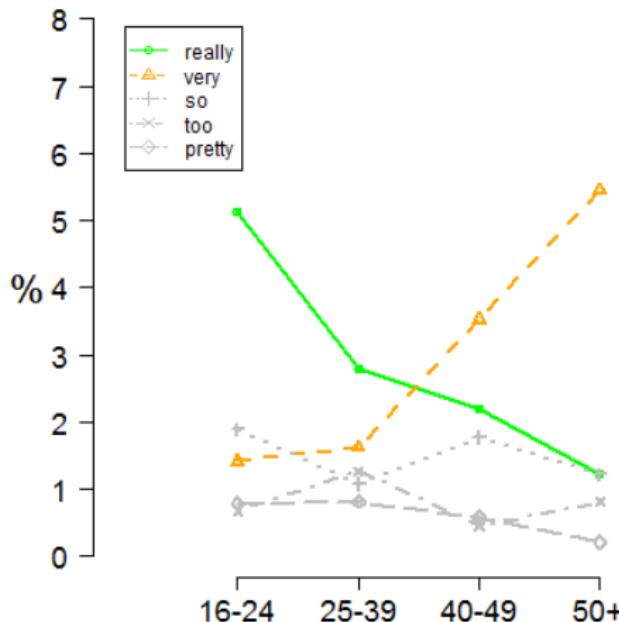
Data Summary: Intensifiers ICE-NZ

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, dreadfully, enormously, entirely, excruciatingly, fucking, fully, horrendously, incredibly, obviously, purely, shocking, true, wicked	1	0.34	3.91

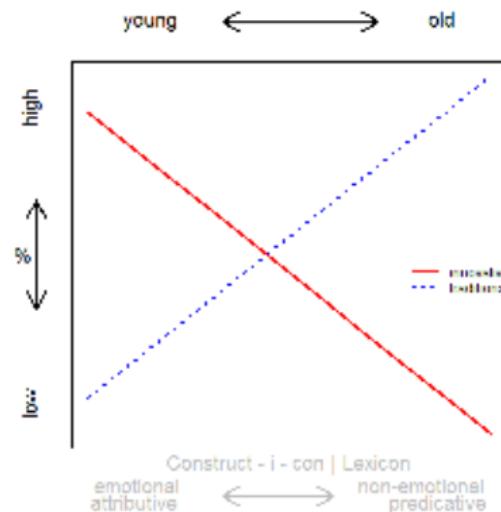
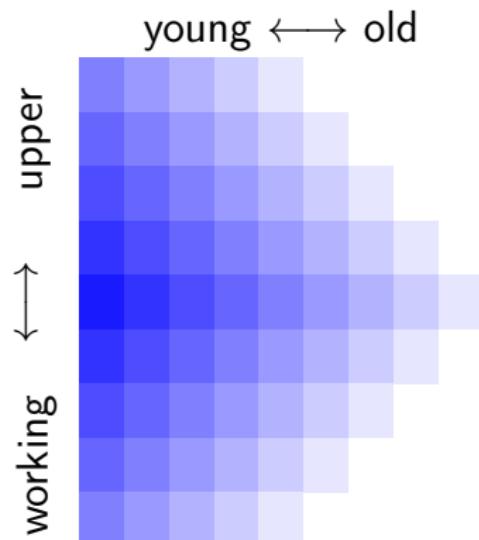
RESULTS

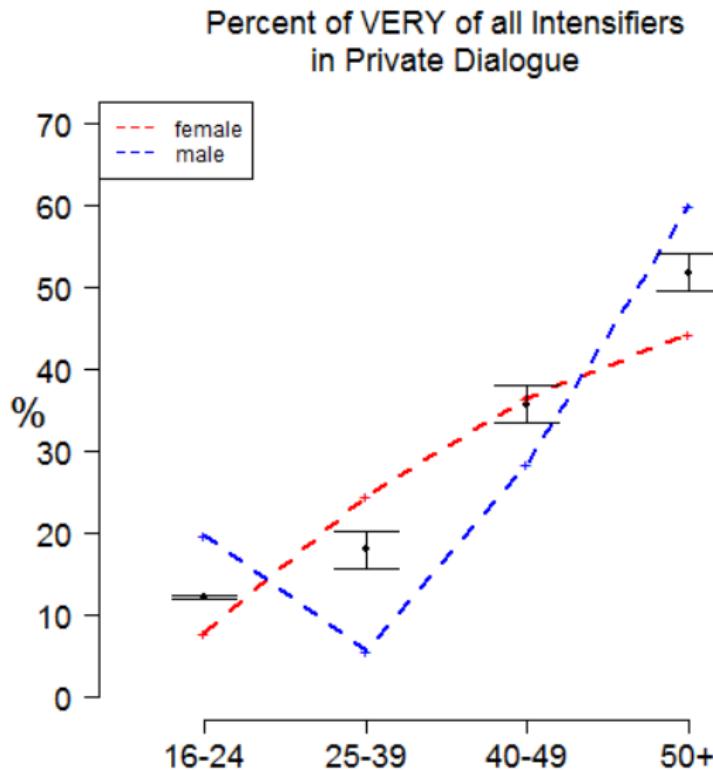
VISUALIZATION

Intensifiers across Age Cohorts

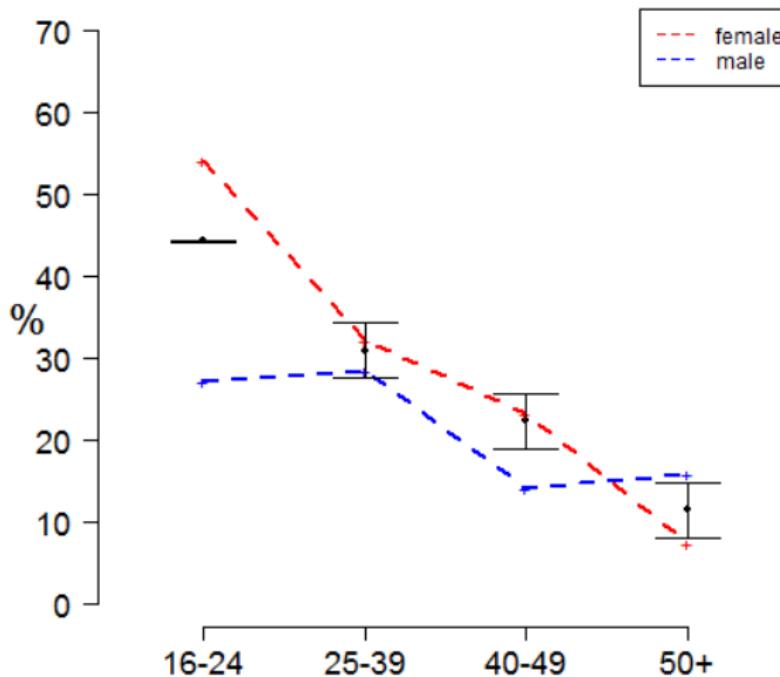


Diffusion of Innovations





Percent of REALLY of all Intensifiers
in Private Dialogue



STATISTICAL ANALYSIS

Research question

Q₂:

Which factors correlate with the use of *really* (innovation)?
(age, sex, syntactic function, . . .)

Statistical Analysis

- ▶ Mixed-effects binomial logistic regression models
 - ▶ AIC based, step-wise step-up model fitting

Dependent Variable(s)

really	nominal	yes/no occurrence of pre-adjectival <i>really</i>
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Independent Variable(s)

age	categorical	age groups in ascending order		
sex	nominal	male female		
eth	nominal	pakeha maori	extra	
occ	nominal	acmp sml		
emo	nominal	emotional nonemotional		
fun	nominal	attributive predicative		
sem	categorical	semantic type of adjective	intra	linguistic
grad	nominal	gradable nongradable		

REGRESSION RESULTS

Regression Results

	Group(s)	Variance	Std. Dev.	L.R.χ^2(df1)	Sig.
Random Effect(s)	flid	0.44	0.66	29	p<.001***
Fixed Effect(s)	Estimate	VIF	OddsRatio	z value	Sig.
(Intercept)	-5.04		0.01	-14.55	p<.001***
age:25-39	-0.57	1.07	0.57	-2.09	p<.05*
age:40-49	-0.94	1.08	0.39	-2.7	p<.01**
age:50+	-1.48	1.03	0.23	-2.98	p<.01**
sex:male	-0.85	1.01	0.43	-3.46	p<.001***
fun:predicative	0.74	1	2.09	4.09	p<.001***
grad:nograd	1.88	1.01	6.52	6.31	p<.001***
emo:emotional	0.79	1.01	2.21	4.49	p<.001***
Model statistics					
Number of Groups					145
Cases in model					4199
Observed successes					150
R ² (Nagelkerke)					0.155
C					0.844
Somers' D _{xy}					0.688
Prediction accuracy					96.43%
Model LL Ratio Test		L.R.χ^2(df8)	176.67	p<.001***	

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(Intercept)	-5.04		0.01	-14.55	p<.001***
age:25-39	-0.57	1.07	0.57	-2.09	p<.05*
age:40-49	-0.94	1.08	0.39	-2.7	p<.01**
age:50+	-1.48	1.03	0.23	-2.98	p<.01**
sex:male	-0.85	1.01	0.43	-3.46	p<.001***
fun:predicative	0.74	1	2.09	4.09	p<.001***
grad:nograd	1.88	1.01	6.52	6.31	p<.001***
emo:emotional	0.79	1.01	2.21	4.49	p<.001***
Model statistics				Value	
Number of Groups				145	
Cases in model				4199	
Observed successes				150	
R ² (Nagelkerke)				0.155	
C				0.844	
Somers' D _{xy}				0.688	
Prediction accuracy				96.43%	
Model LL Ratio Test		L.R. χ^2 (df8)	176.67	p<.001***	

Regression Results

	Group(s)	Variance	Std. Dev.	L.R. χ^2 (df1)	Sig.
Random Effect(s)	flid	0.44	0.66	29	p<.001***
Fixed Effect(s)	Estimate	VIF	OddsRatio	z value	Sig.
(Intercept)	-5.04		0.01	-14.55	p<.001***
age:25-39	-0.57	1.07	0.57	-2.09	p<.05*
age:40-49	-0.94	1.08	0.39	-2.7	p<.01**
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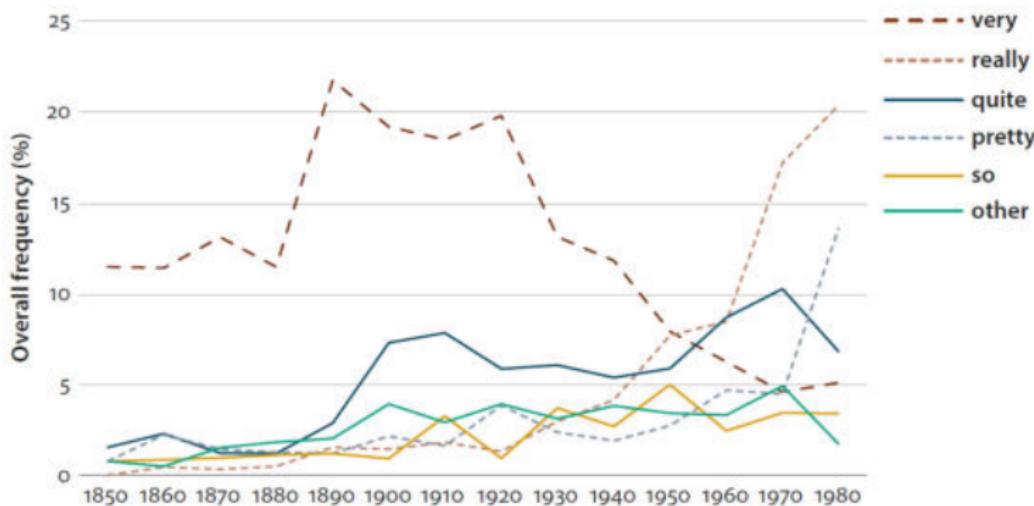
SUMMARY & DISCUSSION

Intensifying *really*

- ▶ use declines almost linearly with age (incoming innovation)
- ▶ is dis-preferred by male speakers (female dominated change)
- ▶ collocates with adjectives that are emotional
- ▶ used preferentially in predicative function
- ▶ is preferred by non-gradual adjectives

Really is heavily stratified and correlates with various factors (age, sex, syntactic function, . . .).

How do we know that *really* is not stable, i.e. used by young speakers in every new generation?



(D'Arcy 2015: 468)

CONCLUSION & OUTLOOK

Conclusion

- ▶ The NZE intensifier system is currently undergoing change
- ▶ *Really* as an incoming variant replaces the traditional form *very*
- ▶ The observed change is accompanied by heavy stratification

But why is *really* taking over???

Outlook

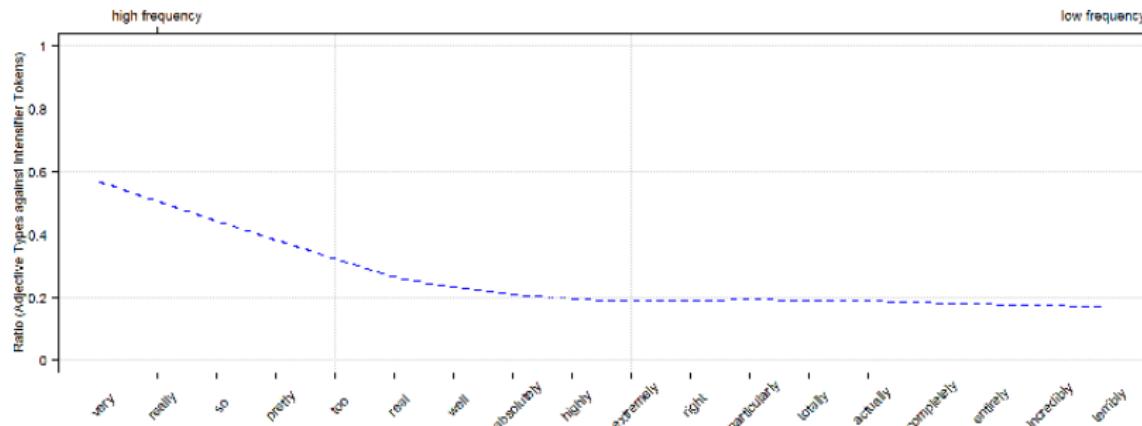
Q₃:

What sets successful innovative intensifiers apart from traditional ones (going extinct)?

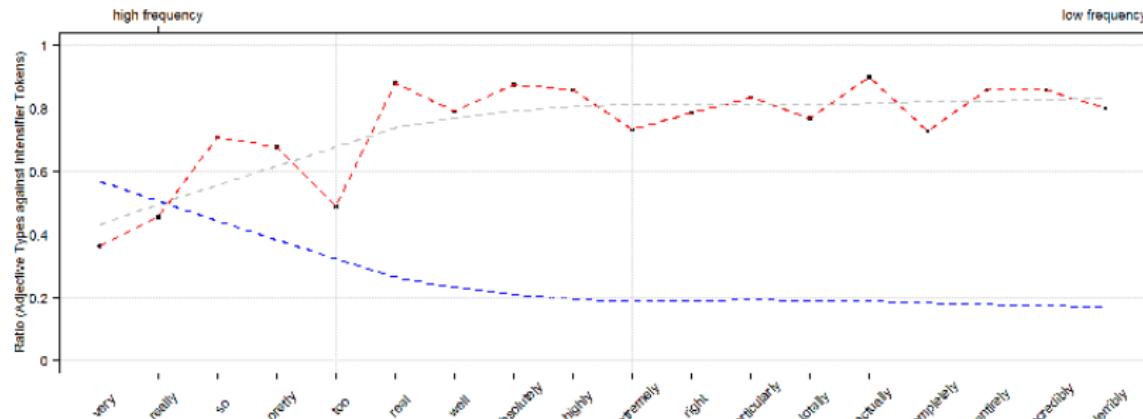
H₁:

Successful innovative intensifiers associate with/bind strongly to few specific adjectives while traditional intensifiers are very general (bleached) and not tied to specific adjectives.

Intensifier tokens : adjective types



Intensifier tokens : adjective types



Intensifier	Tokens	Adj. Types	Ratio
very	604	219	0.36
terribly	5	4	0.80

(all spoken ICE NZ sections combined)

Adjective Frequency : Intensifier Tokens

<good> (N 138, high frequency)

Intensifier	Age			
	16-24	25-39	40-49	50+
<i>really</i>	27	10	2	3
<i>very</i>	5	17	20	23

<hard> (N 32, medium frequency)

Intensifier	Age			
	16-24	25-39	40-49	50+
<i>really</i>	5	3	0	1
<i>very</i>	0	3	4	4
other	6	4	2	0

Maybe...

- ▶ highly frequent intensifiers collocate with more strongly with adjectives than infrequent intensifiers.
- ▶ successful variants collocate with frequent adjectives and thus block other intensifiers from taking over.
- ▶ *really* has become successful because it “steals” collocates from *very*!
- ▶ changes in the intensifier system go hand in hand with changes in collocation strength.

→ Diachronic analysis of collocation patterns of intensifiers

THANK YOU SO, REALLY, VERY MUCH!

And I also thank Laura Sievers for her dedication and assistance with the semantic coding of the adjectives as well as Thomas Berg, Holden Härtl, and Svenja Kranich for their feedback.

- Bauer, L. and W. Bauer (2002). Adjective boosters in the english of young new zealanders. *Journal of English Linguistics* 30, 244–257.
- Bauer, L., A. Bell, D. Britain, G. Kennedy, C. Lane, M. Meyerhoff, and M. Stubbe (1999). The new zealand component of the international corpus of english (ice-nz).
- Brinton, L. J. and L. K. Arnovick (2006). *The English Language: A Linguistic History*. Oxford: Oxford University Press.
- D'Arcy, A. F. (2015). Stability, stasis and change – the longue durée of intensification. *Diachronica* 32(04), 449–493.
- Downes, W. (1998). *Language and society*. Cambridge: Cambridge University Press.
- Ito, R. and S. Tagliamonte (2003). Well weird, right dodgy, very strange, really cool: Layering and recycling in english intensifiers. *Language in Society* 32, 257—279.
- Labov, W. (1994). *Principles of Language Change: Internal Factors*, Volume 1. Oxford: Blackwell.
- Macaulay, R. (2006). Pure grammaticalization: The development of a teenage intensifier. *Language Variation and Change* 18, 267—283.
- Mohammad, S. M. and P. D. Turney (2013). Crowdsourcing a word–emotion association lexicon. *Computational Intelligence* 29(3), 436–465.
- Quirk, R., S. Greenbaum, G. Leech, and J. Svartvik (1985). *A Comprehensive Grammar of the English Language*. London & New York: Longman.
- Tagliamonte, S. (2005). So who? like how? just what?: Discourse markers in the conversations of young canadians. *Journal of Pragmatics* 37(11), 1896–1915.
- Tagliamonte, S. (2006). "so cool, right?": Canadian english entering the 21st century. *The Canadian Journal of Linguistics/La revue canadienne de linguistique* 51(2), 309–331.
- Tagliamonte, S. (2008). So different and pretty cool! recycling intensifiers in toronto, canada. *English Language and Linguistics* 12(2), 361–394.

VERY GOOD, REALLY GREAT,
ABSOLUTELY AMAZING

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SOCIOLINGUISTIC VARIATION IN NEW ZEALAND'S INTENSIFIER SYSTEM

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