



Register and lexicon in new media in Dutch

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Quantitative Lexicology and Variational Linguistics

Background

- QLVL: Quantitative Lexicology and Variational Linguistics
- MA thesis: [Register](#) analysis in blogs
- Research apprenticeship: Sociolectometric studies on a [pluricentric](#) language



Overview

1. Introduction
2. Dutch
3. New media
4. Lexicon: A profile-based method
5. Register: A multi-dimensional approach
6. Conclusions



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1. Introduction

Questions & Answers

- Answer the why's, how's, which's
- How?
 - Register and lexicon in new media in Dutch



1. Introduction

Questions & Answers

- Answer the why's, how's, which's
- How?
 - [Register](#) and lexicon in new media in Dutch





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Questions & Answers

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Questions & Answers

- Answer the why's, how's, which's
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1. Introduction

Research Questions

- What does language use in new media in Dutch show us about how and for which purposes the new media are used?
- How informal is the language use in new media registers in Dutch?
- How does language use in new media in Dutch (both in terms of functionality as in lexical richness) differs from more traditional registers, and how do the new media registers vary among themselves?



1. Introduction

Research Questions

- Descriptive
 - Creating a global overview of (the functions expressed by / the lexical diversity in) new media in Dutch
- Methodological
 - Bringing together profile-based lexical variation and multi-dimensional register research

1. Introduction

Concrete questions

- Is there a continuum from text messages over blogs to Tweets in terms of involvedness?
- How informal is language in new media, and precisely when is it not?
- Are text messages indeed close to spontaneous conversations?
- Do emails have their traditional counterpart in the hand-written letter?
- Do speakers of Belgian Dutch stand out lexically in text messages, but not so on Twitter?



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Concrete questions

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1. Introduction



**Plane leaves at 6pm...
Greece here we come!
-with @Lisa Parker**



Last night as I was surfing around the Web, I came across this amazing cooking site which I desperately want to share with you. *_link_* It has the most exquisite step-by-step fish recipes which I just gotta try! The tips and tricks allow you to look like a 5* cook among your friends. An example: it's called the firecracker technique: [...]



Dear Jeff, Concerning the optimization meeting to be held on Wednesday, I was informed that there would be an opportunity to present last semester's sales results. Having worked on the new sales model, I would be honoured to give my views on next term's expectations. Would this be possible? Best regards, Jonathan



Just saw Quintana conquer the mountain, what a great little man #tourdefrance #greatachievements



Hi Stacy, how're u? what've u been up 2 lately? we should get together soon, i'm in town next weekend



Mom, ok if i stay at lisas? see you at dinner



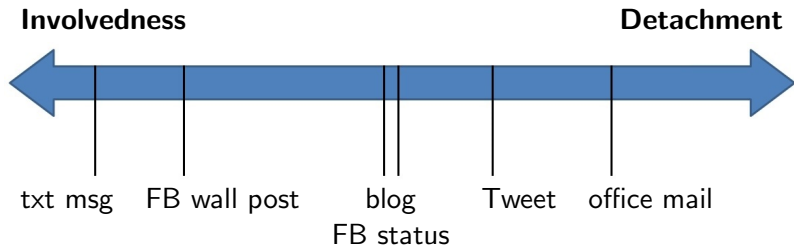
1. Introduction

Continuum



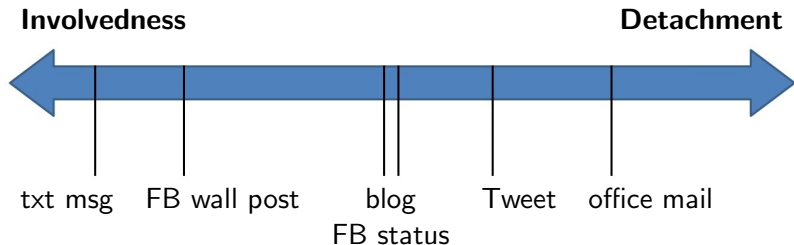
1. Introduction

Continuum



1. Introduction

Continuum



⇒ Continuum from text messages over blogs to Tweets

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2. Dutch

Why Dutch?

- Native speaker
- QLVL tradition
- New



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2. Dutch

Which Dutch?

- Pluricentric language (Clyne 1992)
 - ⇒ >1 national variety
 - Belgian Dutch
 - Netherlandic Dutch

How?

- Large corpora
 - QLVL: blog, Usenet, IRC chat, newspaper, Twitter, ...
 - SoNaR (interuniversity STEVIN project): blog, chat, text message, Twitter, newsletter, e-magazine, ...

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3. New media

Why new media?

- Newness
 - Dutch
 - QLVL
- In fashion



3. New media

Why new media?

- Newness
 - Dutch
 - QLVL
- In fashion

! Also problematic !



3. New media - Terminology & Definitions



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3. New media - Terminology & Definitions

Lievrouw & Livingstone (2006: 2) on **new media**

“[We defined them as:] the *artefacts or devices* used to communicate or convey information; the *activities and practices* in which people engage to communicate or share information; and the *social arrangements or organizational forms* that develop around those devices and practices.”

Baron (2011: 119) on **CMC**

“Some urged incorporating the study of mobile messaging under the rubric of computer-mediated communication, while others proposed alternative terminology. I favor the **umbrella term ‘electronically mediated communication’ (EMC) to encompass language used with any online or mobile device, though the term CMC is more broadly used**, at least in referring to language actually composed on a computer.”



3. New media - Terminology & Definitions

Crystal (2011: 9-10) on **outputs**

“A rather different **terminological question** is what to call the various entities which form Internet discourse, such as email, blogs, chats, and tweets. A main aim of Internet linguistics is to establish their linguistic character. They are often described as *genres*, but that suggests a homogeneity which has not yet been established. The same question-begging would arise if they were called *varieties or dialects or registers* or any of the other terms for situationally related uses of language provided by sociolinguistics and stylistics. Linguists have to demonstrate linguistic coherence, not assume it. We need a term that is **theoretically neutral, from the linguistic point of view, and for the present book I propose to use outputs**. [...] The term implies nothing about its linguistic character, or how it relates to other outputs.”



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4. Lexicon: A profile-based method

Why the lexicon?

- QLVL tradition
- Scope
- Written text corpora

4. Lexicon: A profile-based method

How?

- Profile-based method introduced and elaborated in Geeraerts, Grondelaers & Speelman (1999) and Speelman, Grondelaers & Geeraerts (2003)
- ⇒ Some terminology
- Lexical variation
 - Onomasiology
 - Profile
 - City-block distance

4. Lexicon: A profile-based method

MOBIELE TELEFOON	Bel.Dutch	%	Neth.Duth	%
cellulaire telefoon	2	0.000	1	0.000
draagbare telefoon	174	0.011	66	0.004
gsm	11443	0.754	1108	0.063
mobiel	19	0.001	10859	0.619
mobiele telefoon	2678	0.176	3930	0.224
mobieltje	619	0.041	1209	0.069
zaktelefoon	249	0.016	375	0.021

4. Lexicon: A profile-based method

How?

1. Calculate the relative frequencies for each alternative
2. Subtract the relative frequencies two by two
 - $0.000 - 0.000 = 0.000$; $0.011 - 0.004 = 0.008$; $0.754 - 0.063 = 0.690$; $0.001 - 0.619 = -0.618$; $0.176 - 0.224 = -0.048$; $0.041 - 0.069 = -0.028$; $0.016 - 0.021 = -0.005$
3. Add the absolute values of the subtractions
 - $|0.000| + |0.008| + |0.690| + |-0.618| + |-0.048| + |-0.028| + |-0.005| = 1.397$
4. Divide by two
 - $1.397 \div 2 = 0.698$



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 - $1.397 \div 2 = \boxed{0.698} \leftarrow \text{dissimilarity measure}$



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5. Register: A multi-dimensional approach

What is register?

- ≠ genre (Biber 1994: 51)
- ≠ text type (Biber 1994: 52)
- “a cover term for any language variety defined in situational terms, including the speaker’s purpose in communication, the topic, the relationship between speaker and hearer, spoken or written mode, and the production circumstances”
(Biber et al. 2002: 10)



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Who is Biber?

- *Variation across speech and writing* (1988)



5. Register: A multi-dimensional approach

What is multi-dimensional analysis (MD)?

- MD groups co-occurring patterns among linguistic features into factors, which are then interpreted as dimensions of functional variation

How to apply multi-dimensional analysis?

1. Relevant linguistic features \Rightarrow matrix
2. Factor analysis \Rightarrow expose correlations
3. Shared situational, social and cognitive functions \Rightarrow underlying dimensions



5. Register: A multi-dimensional approach

	nomz	PrepP	fpp	spp	absN	...	netsp
text ₁	0.743	0.541	0.825	0.287	0.196	...	0.987
text ₂	0.831	0.697	0.032	0.221	0.868	...	0.471
text ₃	0.977	0.751	0.194	0.212	0.980	...	0.002
text ₄	0.321	0.554	0.725	0.836	0.642	...	0.312
text ₅	0.759	0.709	0.209	0.126	0.794	...	0.082
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
text _n	0.897	0.795	0.329	0.304	0.921	...	0.381

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⇒ indication of an information-focused dimension

5. Register: A multi-dimensional approach

Why use MD?

- Univocal ground: 1 method → various registers
- Compare among new media registers
- Compare to other more traditional registers
- Allows to incorporate profile-based lexical variation



5. When register meets lexical variation...

How?

- Combine register & lexicon methodology
 - Incorporate MD (frequency → distance) in lexical variation
 - Incorporate lexical variation (distance → proportion) in MD
- ⇒ Evaluation without & with

Why?

- Tool to investigate functions expressed by new media registers & deal with lexical variation



5. When register meets lexical variation... or when one plus one equals three

Contributing to...

- Lexical variation
 - Tradition: new media as representations of substandard language use
 - Extension: grasp to what extent functional dimensions influence lexical variation (and is there a difference for Belgian Dutch and Netherlandic Dutch)
- Register/multi-dimensional analysis
 - Tradition: limited set of lexical variables in research by Biber
 - Extension: grasp to what extent systematic (profile-based) lexical variation research influences the determination of functional dimensions



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⇒ Register
- How informal is the language use in new media registers in Dutch?
⇒ Lexicon
- How does language use in new media in Dutch (both in terms of functionality as in lexical richness) differs from more traditional registers, and how do the new media registers vary among themselves?
⇒ Register & lexicon



6. Conclusions

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 - ⇒ Register & lexicon
- Methodological
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6. Conclusions

What should you retain?

- Register
 - Role: multi-dimensional analysis
 - New: influence of functional dimensions on lexical variation
- Lexicon
 - Role: profile-based study of lexical variation
 - New: influence of lexical variation on functional dimensions
- New media
 - Role: data
 - New: status for Dutch
- Dutch
 - Role: tradition
 - New: systematic global comparison (and extrapolation?)



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Thank you! Suggestions? Questions?



More information?

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