



Language attitudes and comprehension in a pluricentric language: the case of Dutch

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Research question

can we show that language attitude correlates with comprehension?

Outline

Introduction

Affective priming

Mutual intelligibility

Results

Conclusions



Introduction

- there is some evidence for intelligibility difficulties between and among Belgian and Netherlandic Dutch speakers
- which determinants account for these difficulties?

objective factors	versus	subjective factors
linguistic distance		language attitude
geographical distance		familiarity

Introduction

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objective factors	versus	subjective factors
linguistic distance		language attitude
geographical distance		familiarity

Introduction

- it is known that speakers of Dutch have outspoken **language attitudes** towards (the language use of) other Dutch speakers (e.g. Van Hout en Knops 1988)
- this may correlate with the extent to which they (want) to understand other speakers, but in an experimental setting, a link between attitudes and intelligibility has not been proven yet

Introduction

- assuming that language attitudes may play a role in predicting intelligibility relations (e.g. Börestam 1987, Boets and De Schutter 1977), two preliminary steps need to be taken:
 - how to measure the attitudes?
 - affective priming
 - how to measure intelligibility?
 - intelligibility experiment

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Affective priming

- the **affective priming paradigm** is an important and successful tool in social-psychological research for the indirect measurement of attitudes
- an innovation of the present project:
using affective priming as a tool for measuring language attitudes

Affective priming

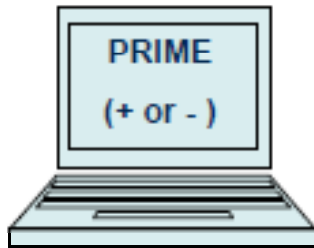
- why go for indirect measures of attitudes?
- e.g. Gooskens 2006: predictors of mutual intelligibility of Scandinavian languages
~ phonetic distance, familiarity, attitude?

no effect of attitude – but the attitudes were measured directly and consciously only: what if you do indirect measurements?

Affective priming

- why use affective priming?
- current techniques for indirectly measuring linguistic attitudes (matched guise and mixed guise techniques) have stagnated somewhat; a new impetus is called for

Affective priming

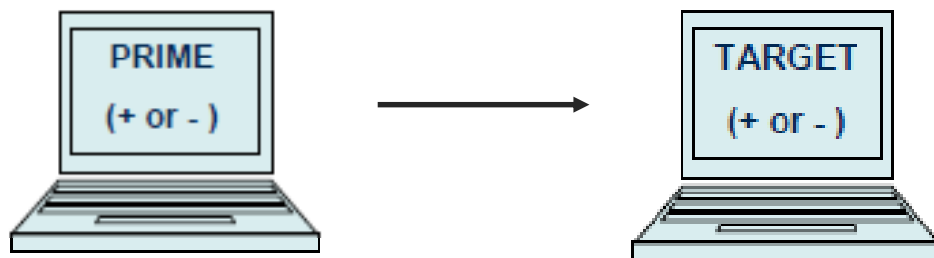


stimuli = written words, pictures, ...

+ = positive affect (flowers, butterfly, love,...)

- = negative affect (skull, nuclear bomb, cancer,...)

Affective priming



Affective priming



Affective priming



“Is target positive or negative?”

Affective priming



PRIME	+	-	+	-
TARGET	+	+	-	-
RESPONSE	fast	slow	slow	fast

Design

our innovation:

- use auditive primes, i.e. words pronounced in different language varieties
- how these primes affect the reaction times (speeding up or slowing down) will tell us whether they are positively or negatively connoted

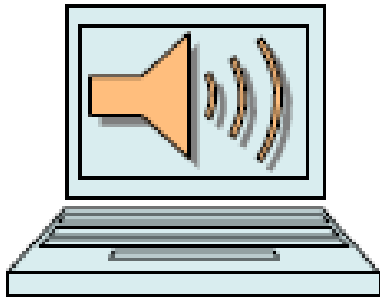


Design

steps in the experimental procedure:

- assessing the targets' main effect
- main auditive priming procedure
- postexperimental rating tasks to check primes' connotative neutrality and test subjects' explicit attitude towards primes

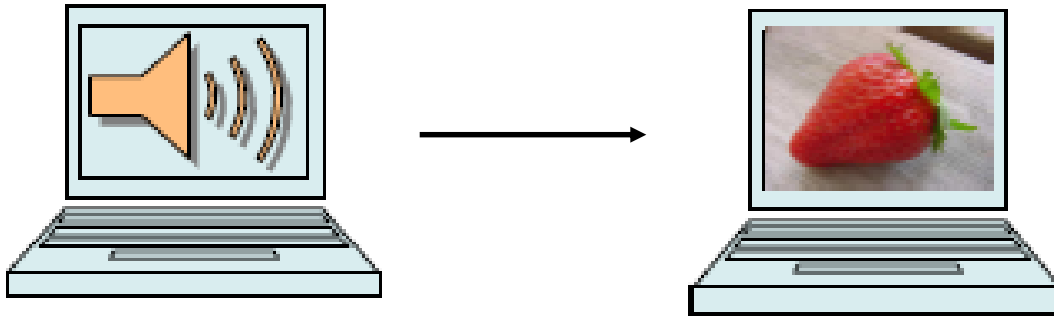
Auditive affective priming experiment



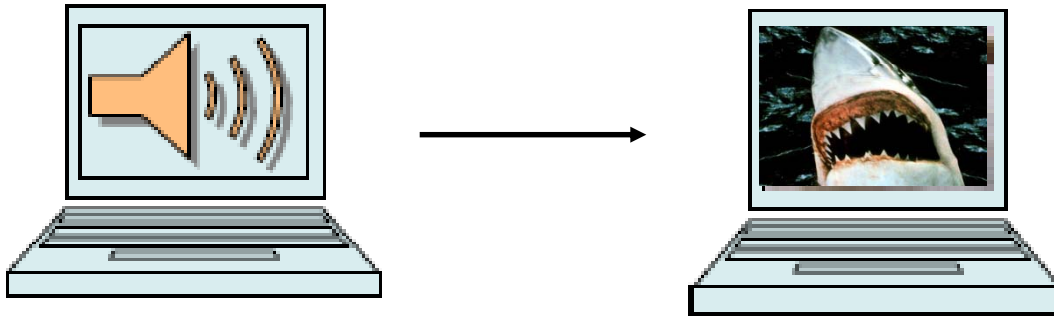
auditive primes

30 existing, semantically neutral words + 30 nonsense words, each pronounced in 3 Dutch varieties (standard + West-Flemish regiolect + Antwerp regiolect)

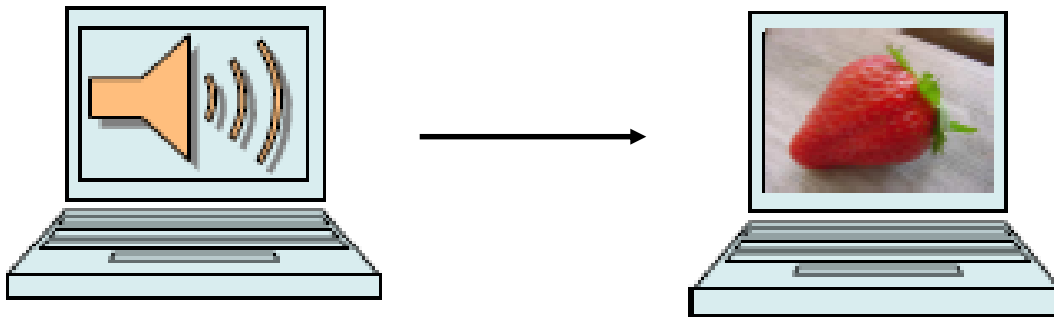
Auditive affective priming experiment



Auditive affective priming experiment



Auditive affective priming experiment



visual targets, as in standard affective priming design

15 positive + 15 negative pictures (standardized, IAPS database); no semantic association with primes

Auditive affective priming experiment



Auditive affective priming experiment



is target positive or negative?

- accuracy and reaction time
- 65 test subjects: 2 regional groups (Antwerp + West-Flanders)

Auditive affective priming experiment



assumptions:

PRIME	own/standard	other	own/standard	other
TARGET	+	+	-	-
RESPONSE	fast	slow	slow	fast

Auditive affective priming experiment



assumptions:

PRIME	+	-	+	-
TARGET	+	+	-	-
RESPONSE	fast	slow	slow	fast

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Mutual intelligibility

lexical decision task

- 60 existing words + 60 non-existing words
- 3 (Belgian) Dutch language varieties
- decide as quickly as possible whether the presented word is an existing Dutch word or not
- working assumption: faster response = better intelligibility

Mutual intelligibility

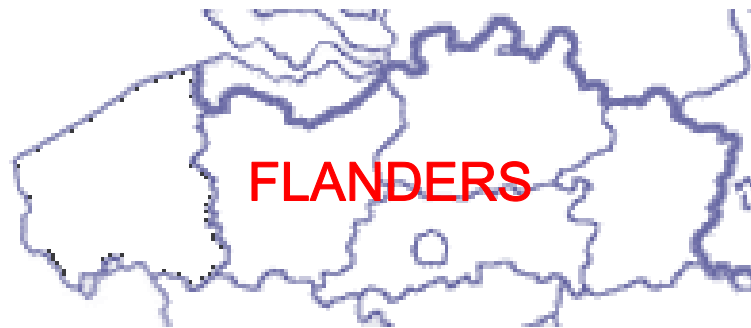
lexical decision task

- we measure accuracy + reaction time
- only if test subject answers accurately are the reaction times used in analyses

Mutual intelligibility

targets

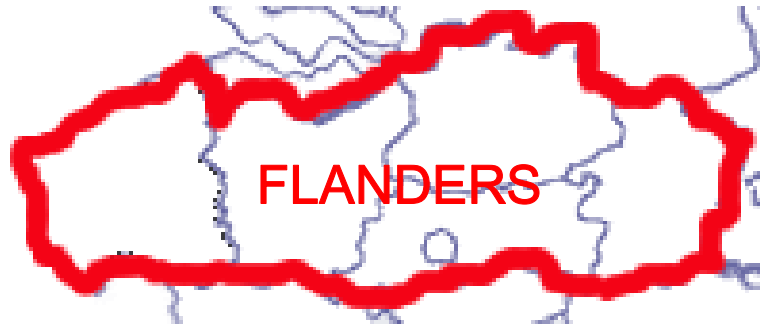
same varieties as in affective priming experiment:



Mutual intelligibility

targets

same varieties as in affective priming experiment:



Standard Belgian Dutch

Mutual intelligibility

targets

same varieties as in affective priming experiment:



West-Flanders regiolect

Antwerp regiolect

Mutual intelligibility

test subjects

same 65 participants as in affective priming experiment:



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Affective priming results

method: repeated measures ANOVA

response variable: mean reaction times

explanatory factors:

- prime accent: Standard Dutch vs West-Flemish regiolect vs Antwerp regiolect
- test subjects: West-Flanders vs Antwerp
- target valence: positive pictures vs negative pictures

Affective priming results

- significant interaction ($p < 0.05$): different groups of speakers have different attitudes towards different Dutch language varieties
- **Antwerp test subjects**
Antwerpish > Standard Dutch > West-Flemish
- **West-Flanders test subjects**
Standard Dutch > West-Flemish > Antwerpish

Affective priming results

- the standard variety is, overall, rather positively evaluated (due to high socioeconomic status, power, media usage)
- Antwerp test subjects
Antwerpish > Standard Dutch > West-Flemish
- West-Flanders test subjects
Standard Dutch > West-Flemish > Antwerpish

Affective priming results

- a speaker's own non-standard accent is (significantly) preferred over a foreign non-standard accent (ingroup favouritism)
- Antwerp test subjects
Antwerpish > Standard Dutch > West-Flemish
- West-Flanders test subjects
Standard Dutch > West-Flemish > Antwerpish

Affective priming results

- stereotypically, Antwerp speakers prefer their own variety over all other varieties (high linguistic self-confidence)
- Antwerp test subjects
Antwerpish > Standard Dutch > West-Flemish
- West-Flanders test subjects
Standard Dutch > West-Flemish > Antwerpish

Intelligibility results

method: repeated measures ANOVA

response variable: mean reaction times (given accuracy)

explanatory factors:

- stimulus accent: Standard Dutch vs West-Flemish regiolect vs Antwerp regiolect
- test subjects: West-Flanders vs Antwerp

Intelligibility results

- significant interaction ($p < 0.01$): different groups of speakers recognize certain Dutch language varieties better than other ones
- Antwerp test subjects
Standard Dutch > Antwerpish > West-Flemish
- West-Flanders test subjects
Standard Dutch > West-Flemish > Antwerpish

Combined results

- is there a correlation between attitude and intelligibility?
we cannot correlate reaction times to individual stimuli,
but we can look for a correlation between
- a test subject's attitude towards a variety,
expressed by a **relative preference score**
- a test subject comprehension of that variety,
expressed by **relative index**

Combined results

- **relative preference score:**
for each triplet of test subject & stimulus variety X & stimulus variety Y, we calculate

 mean RT for incongruous conditions (for X and Y)
 minus
 mean RT for congruous conditions (for X and Y)
- the higher the preference score, the more positive the attitude towards X relative to Y

Combined results

- **relative index:**
for each triplet of test subject & stimulus variety X & stimulus variety Y, we calculate

$$\begin{aligned} & \text{mean RT for words in variety Y} \\ & \text{minus} \\ & \text{mean RT for words in variety X} \end{aligned}$$

- the higher the index, the higher the intelligibility of X relative to Y



Combined results

results of correlation analysis:

$R = 0.36$, $R^2 = 0.13$, Adjusted $R^2 = 0.10$

$F(1,31) = 4.51$, $p < 0.05$, $MSE = 81.93$



Combined results

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$R = 0.36$, $R^2 = 0.13$, Adjusted $R^2 = 0.10$

$F(1,31) = 4.51$, $p < 0.05$, $MSE = 81.93$

a) language attitudes correlate significantly with intelligibility scores

Combined results

results of correlation analysis:

$R = 0.36$, $R^2 = 0.13$, Adjusted $R^2 = 0.10$

$F(1,31) = 4.51$, $p < 0.05$, $MSE = 81.93$

- a) language attitudes correlate significantly with intelligibility scores
- b) but the amount of variation explained by attitudes is relatively limited

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Conclusions

- language attitudes correlate with intelligibility scores (but careful: this says nothing about the direction of the causality)
- these results show that affective priming opens up a new paradigm for language attitude research



for further information:

<http://www.ling.arts.kuleuven.be/qvl>

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