



# exploring the limits of implicit attitude measures from social psychology to study language attitudes:

contextualizing the P-IAT

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# introduction

- since 1960s **little methodological innovation** in language attitudes research (until recently)
  - innovation:
    - inspired by attitude research in **social psychology**
    - e.g. implicit association test (**IAT**)
- exploring potential of IAT for linguistic attitude research: importing situational context into the IAT

## outline

1. IAT 101
2. contextualized quantitative research into language attitudes using the IAT?
3. case study: introducing context in the IAT

# outline


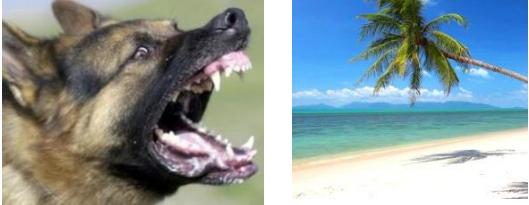
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# IAT: 101

- reaction time based task to measure association between two concepts
- commonly used in social psychology since 1998
- recently adopted in linguistics
  - indexicality:  
Campbell-Kibler 2012, 2013; Watt & Llamas 2015; Hilton, Rosseel, Smidt & Coler 2016
  - language attitudes:  
Redinger 2010; Pantos 2010, 2012; Rosseel, Speelman & Geeraerts 2015; Lee 2015 ; Watt & Llamas 2015

# IAT 101

how does it work?

	TARGET	ATTRIBUTE
category names	variety1/variety2	I like / I don't like
stimuli		

IAT 101

variety1

variety2

I like

I don't like

variety1

variety2

I like

I don't like

variety2

variety1

variety2

I like

variety1

I don't like



5 blocks of trials



IAT 101

variety1

variety2

I like

I don't like

variety1

variety2

I like

I don't like

variety2

variety1

variety2

variety1

I like

I don't like



practice blocks





IAT 101

variety1

variety2

I like

I don't like

variety1

variety2

I like

I don't like

variety2

variety1

variety2

variety1

I like

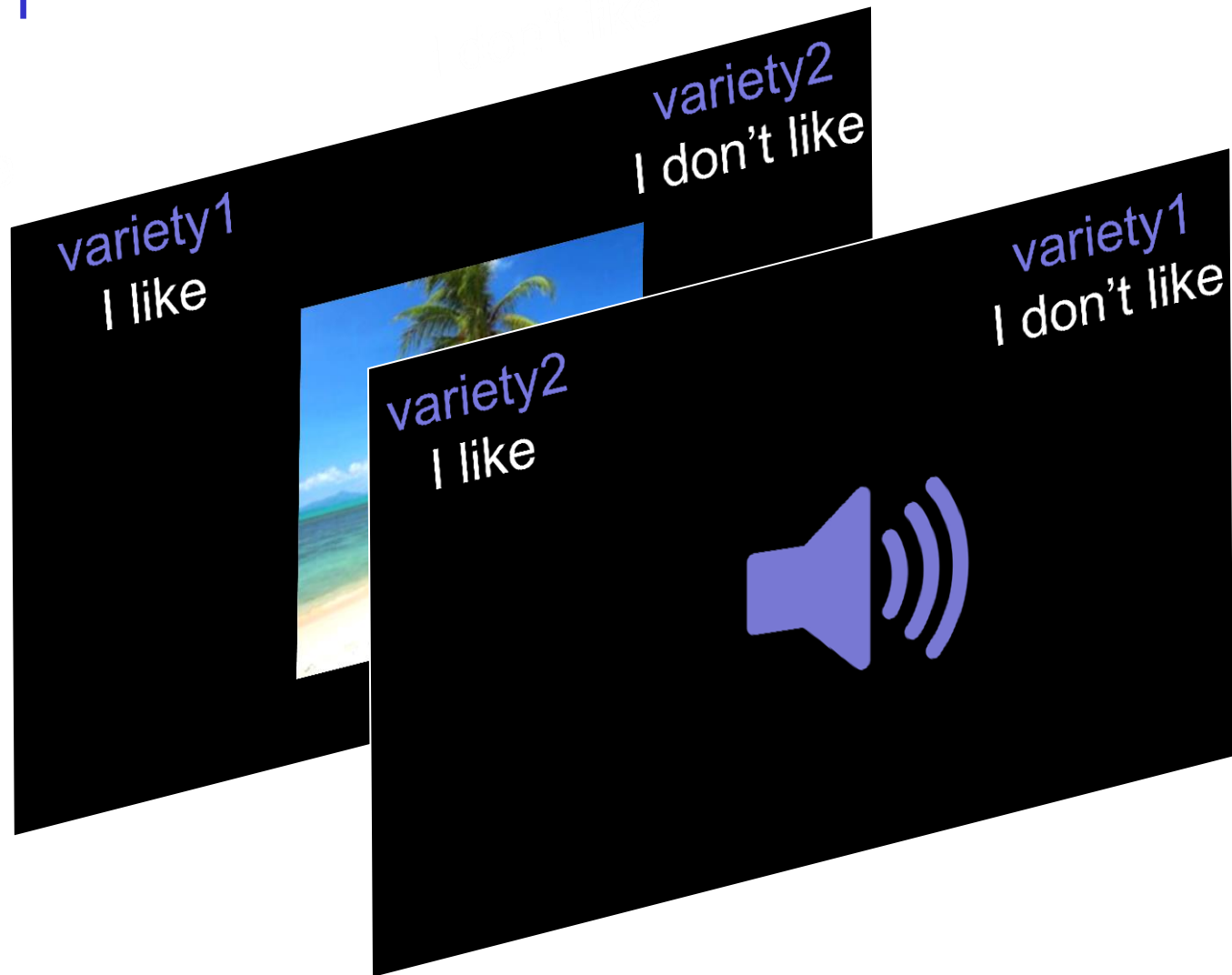
I don't like



experimental blocks 3 & 5

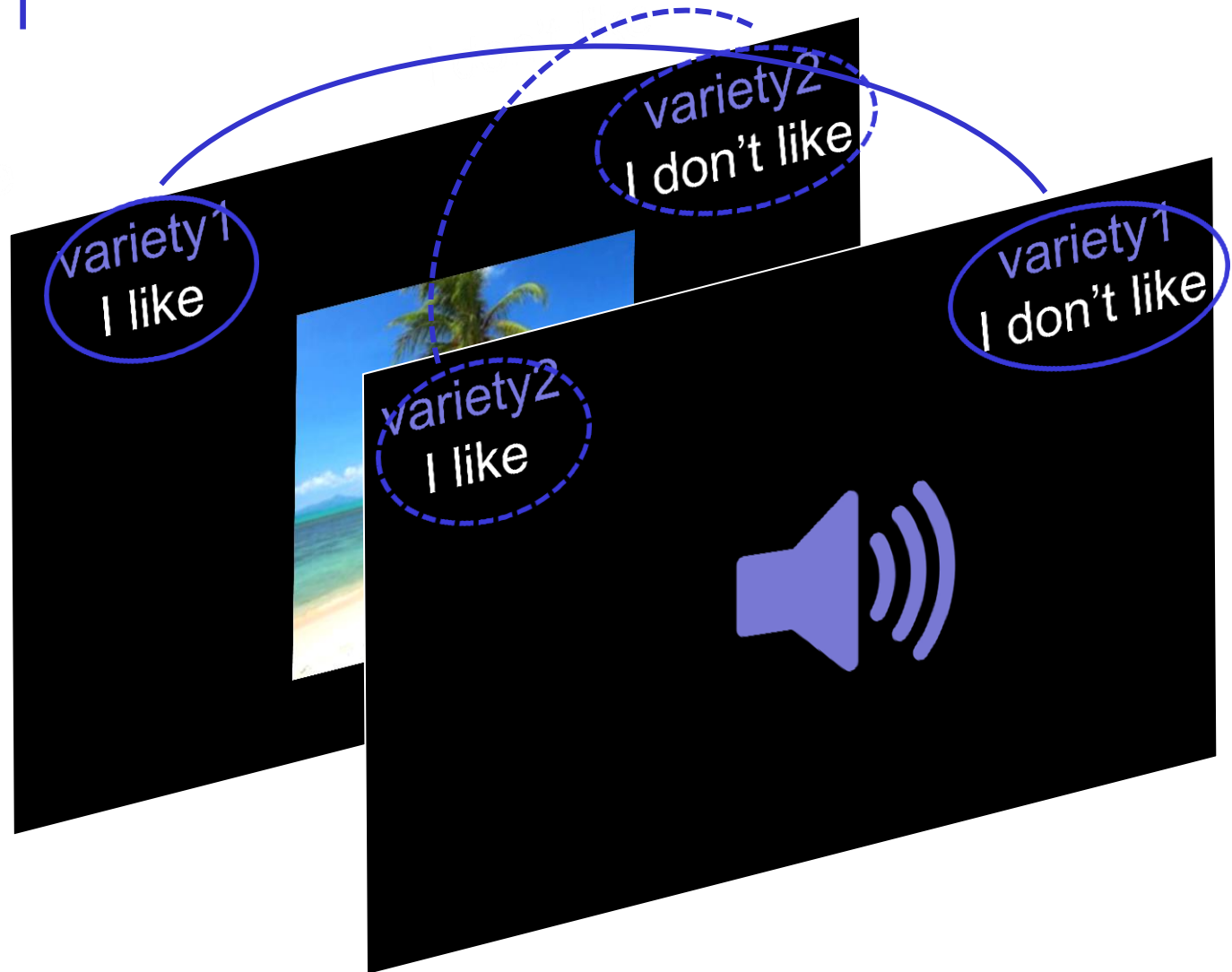


# IAT 101



experimental blocks 3 & 5

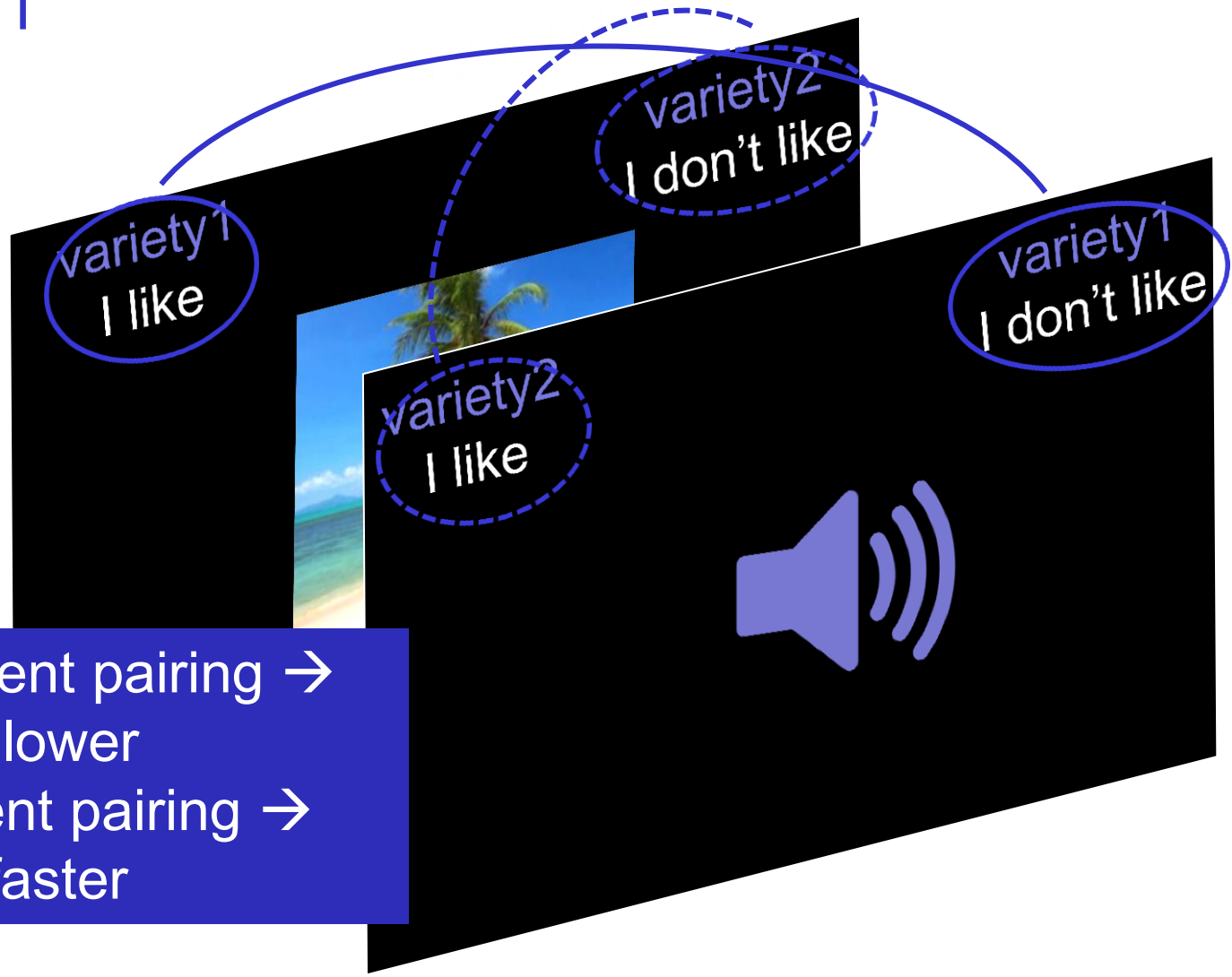
# IAT 101



experimental blocks 3 & 5



# IAT 101

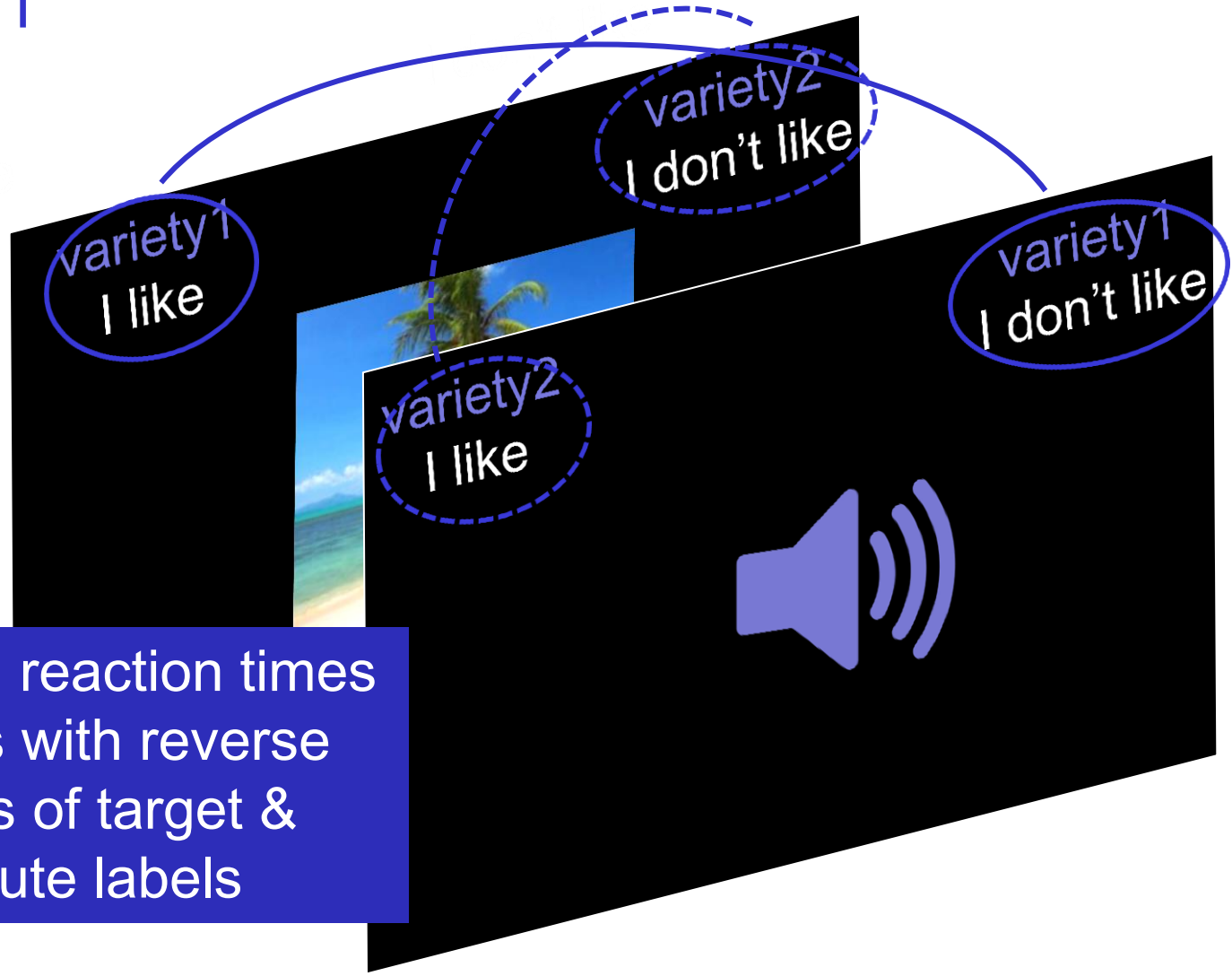


incongruent pairing →  
slower  
congruent pairing →  
faster

experimental blocks 3 & 5



# IAT 101



comparing reaction times  
in blocks with reverse  
pairings of target &  
attribute labels

experimental blocks 3 & 5



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# contextualized quantitative research into LAs using the IAT?

- what's interesting about the IAT
  - good psychometric qualities
  - flexibility
  - new/different interpretation of 'implicit' attitudes
  - ...



# contextualized quantitative research into LAs using the IAT?

- **HOWEVER** also some restrictions:
    - binary/comparative structure
    - cognitively demanding
    - ...
    - decontextualized
- <-> context dependency of language evaluation

(e.g. Soukup 2012, 2015; Eckert 2012; Levon & Buchstaller 2015, 341; Campbell-Kibler 2009, Lybaert 2014; Purschke 2015)

# contextualized quantitative research into LA using the IAT?

- solutions for decontextualized IAT?
  - other quantitative social psychological measures, e.g. Relational Responding Task (RRT)
  - importing context into the IAT
    - social psychology → IAT is context sensitive  
(Gschwedner et al. 2008, Wittenbrink et al. 2001, Uhlmann & Swanson 2004, Dasgupta & Greenwald 2001, Karpinski & Hilton 2001, but see Sherman et al. 2003 for an opposing view)

# contextualized quantitative research into LA using the IAT?

- solutions for decontextualized IAT?
    - other quantitative social psychological measures, e.g. Relational Responding Task (RRT)
    - importing context into the IAT
      - social psychology → IAT is context sensitive
      - during IAT & before IAT
- importing context possible for IAT as measure of LAs?

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# outline

1. IAT 101
2. contextualized quantitative research into language attitudes using the IAT?
3. case study: introducing context in the IAT
  - 3.1 experiment design
  - 3.2 results
  - 3.3 discussion

## case study: experiment design

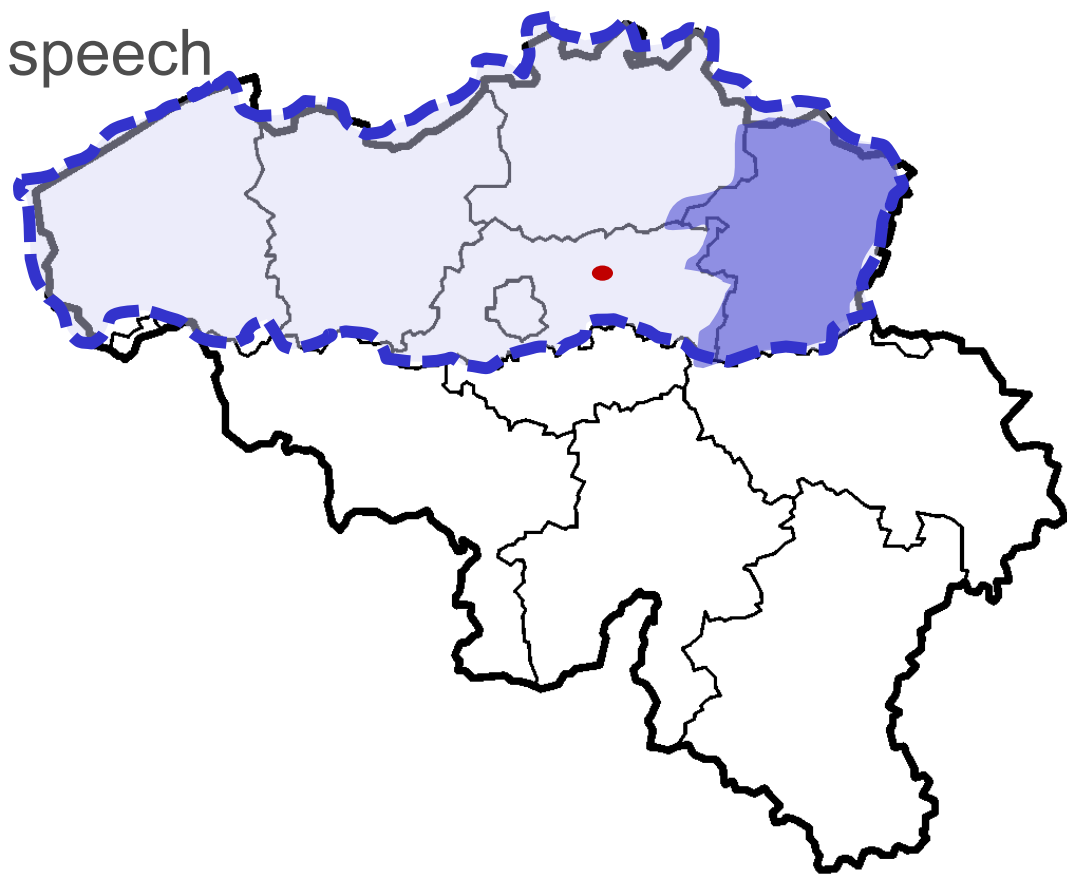
- previous studies: (e.g. Lybaert 2014)  
attitudes towards regional language variation in Dutch speaking Belgium are context dependent
  - standard Belgian Dutch (SBD) → formal situations
  - regionally accented speech → informal situations
- ~ production studies (Geeraerts & Van de Velde 2013)
- → can we measure this variation using the IAT?

## case study: experiment design

- target varieties:
  - SBD accented speech
  - Limburg accented speech

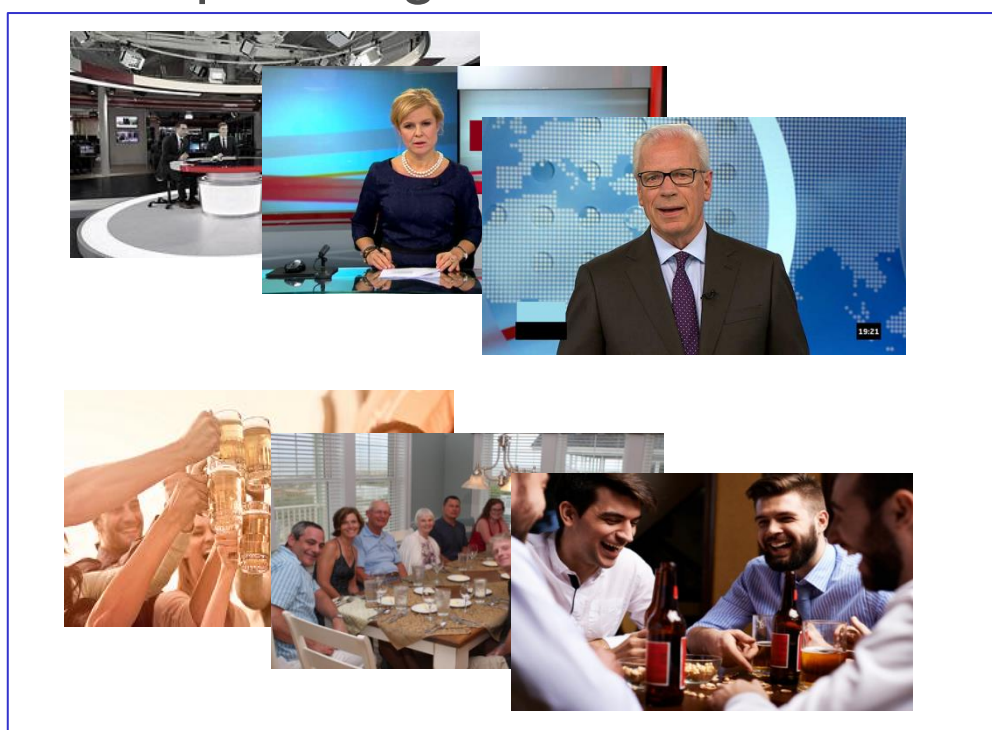
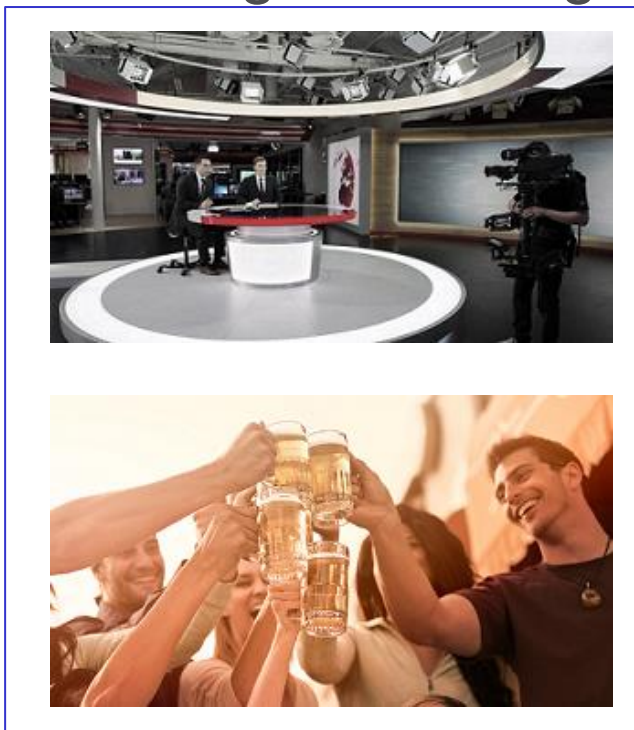
- participants:  
160 Limburgian  
students in Leuven

$M_{\text{age}} = 20.96$   
gender  $\rightarrow$  55% f



# case study: experiment design

- two manipulations:
  - context: formal vs. informal
  - context presentation: background image vs. multiple images between blocks





# case study: experiment design

	P 1	P 1	P 1	P 1	P 1	P 1	P 1	P 2	P 2	P 2	P 2	P 2	P 2	P 2	P 2	
	V 1	V 1	V 2	V 2	V 1	V 1	V 2	V 2	V 1	V 1	V 2	V 2	V 1	V 1	V 2	V 2
	C 1	C 2	C 1	C 2	C 2	C 1	C 2	C 1	C 1	C 2	C 1	C 2	C 2	C 1	C 2	C 1
# partici pants	a		b		c		d		e		f		g		h	
	20		20		20		20		20		20		20		20	

## case study: experiment design

- 2 IATs followed by explicit rating task

- a. Hoe sta je tegenover de **accenten** die je in het experiment gehoord hebt, in een **informele situatie** (bv. aan tafel of tijdens een avondje uit met vrienden of familie)?

Kleur een bolletje: hoe dichter bij een accent, hoe positiever je dat accent vindt.

Limburgs accent                             neutraal accent

- b. Hoe sta je tegenover een **Limburgs accent** (zoals gehoord in het experiment) in een **informele situatie** (bv. aan tafel of tijdens een avondje uit met vrienden of familie)?

negatief                          positief

- c. Hoe sta je tegenover een **neutraal accent** (zoals gehoord in het experiment) in een **informele situatie** (bv. aan tafel of tijdens een avondje uit met vrienden of familie)?

negatief                          positief

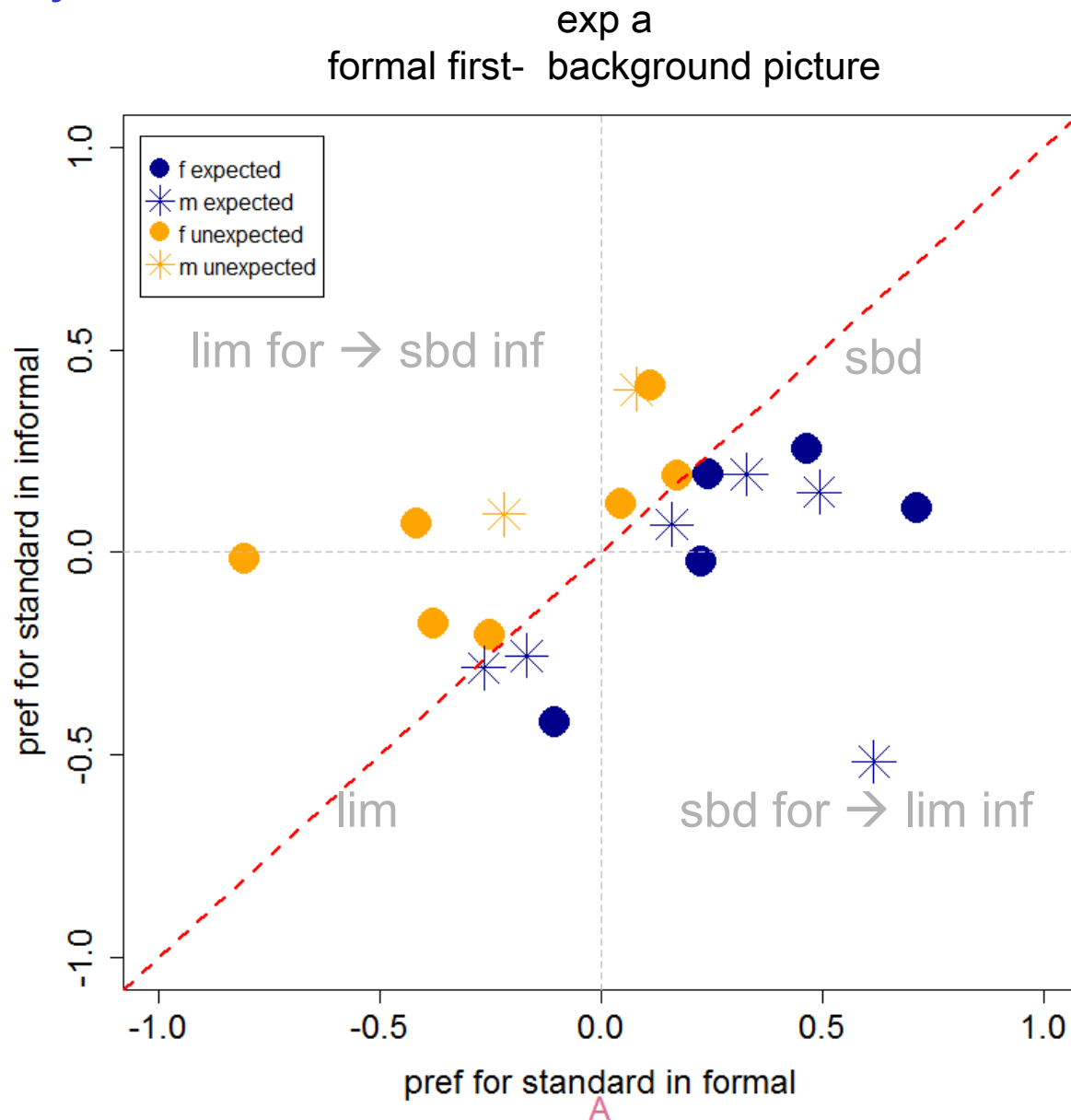
- demographic information

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# case study: results

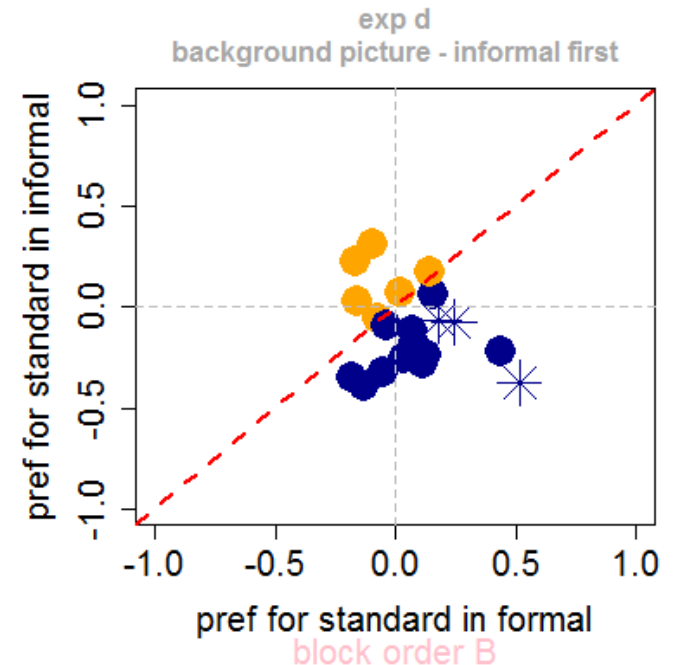
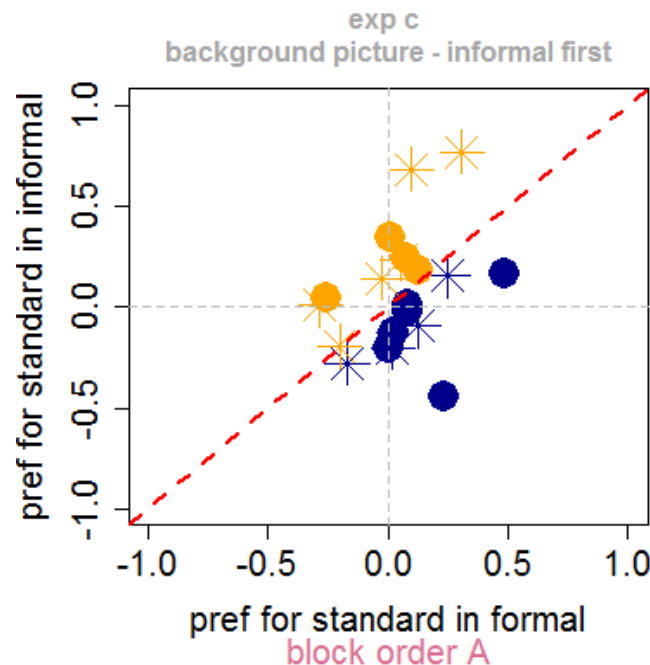
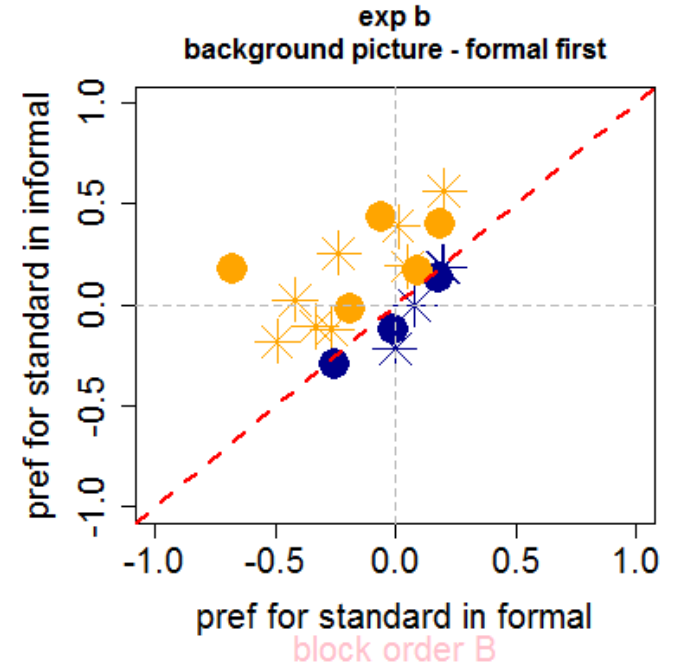
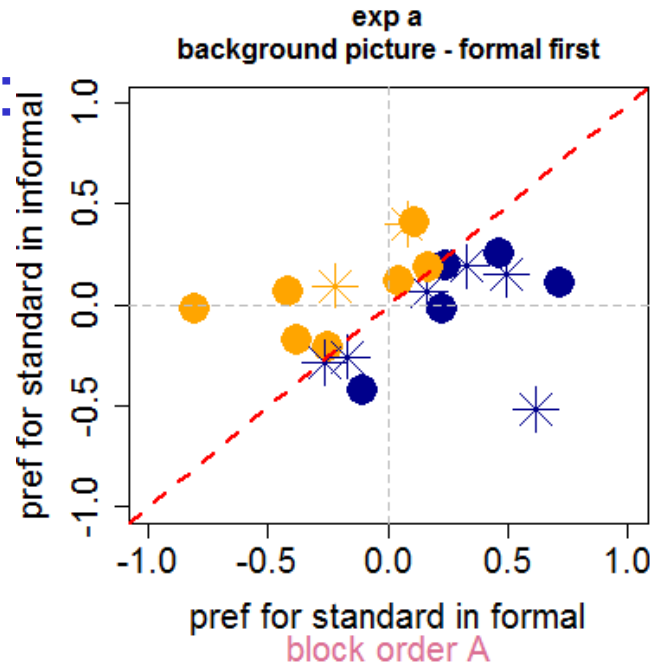
- P-IATs



# case study:

- P-IATs

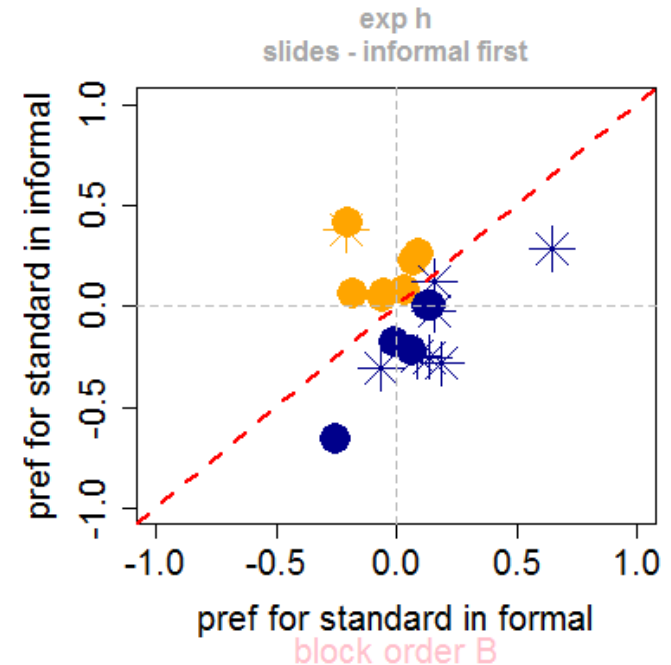
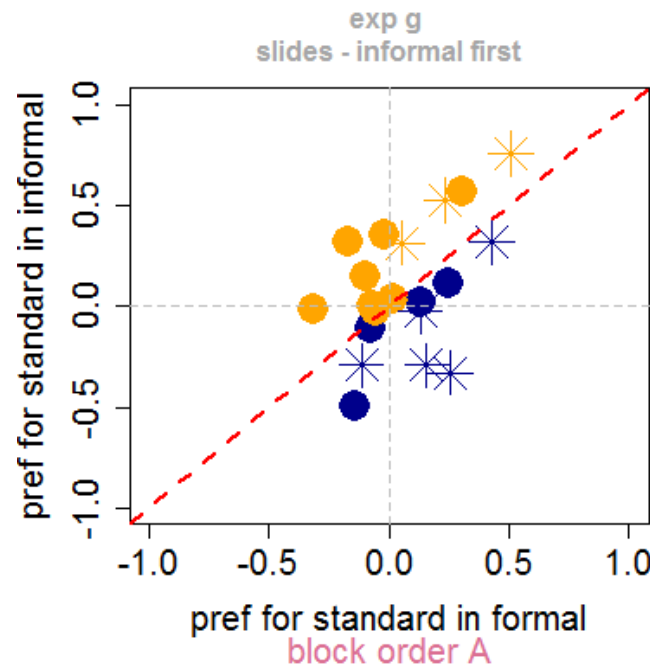
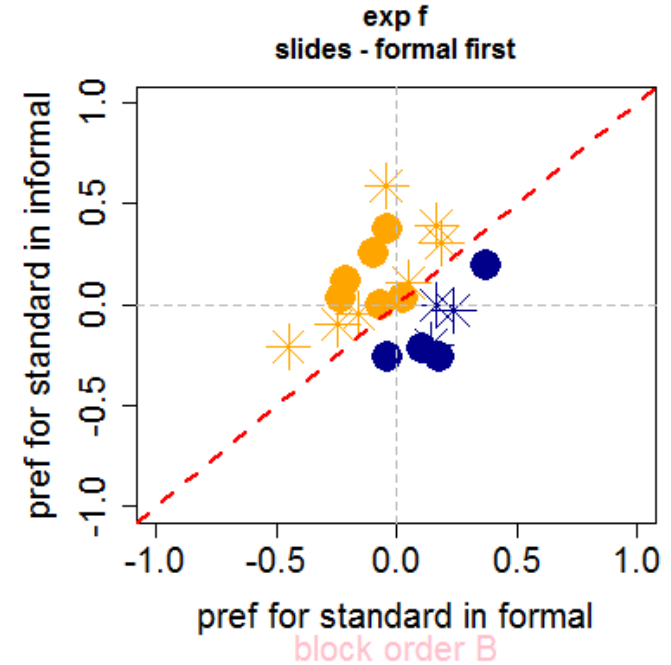
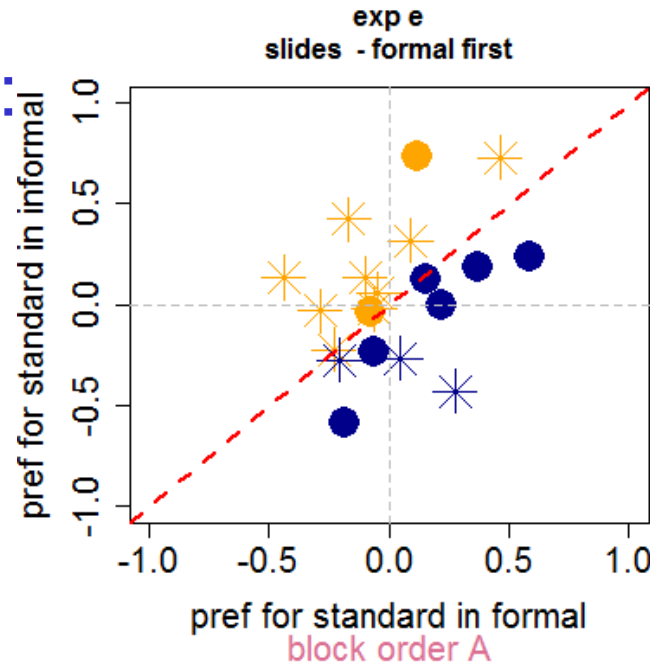
background picture



# case study:

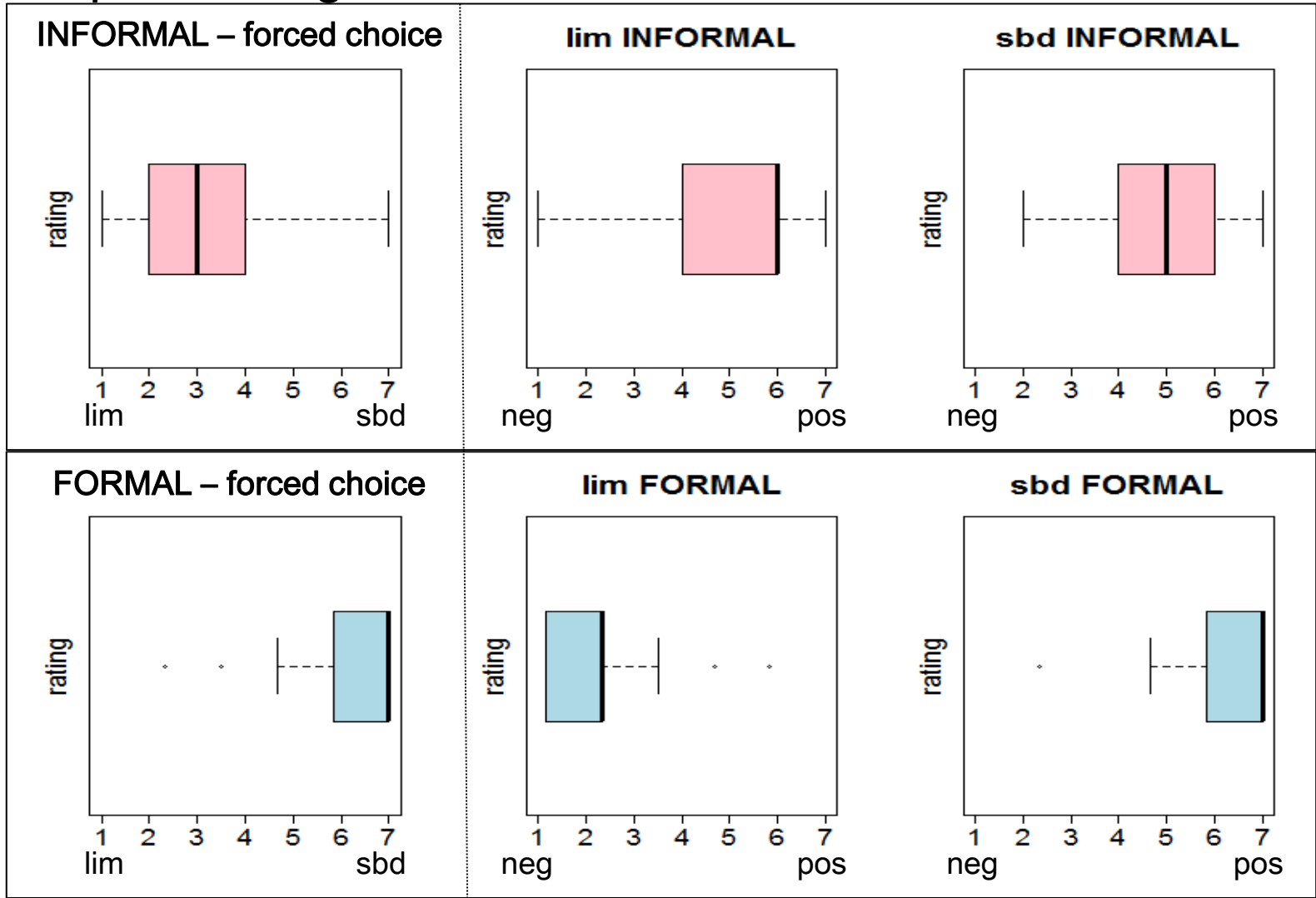
- P-IATs

sequence of pictures before each block of IAT



# case study: results

- explicit ratings



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## case study: discussion

- does the IAT only measure 'deep', 'general', context independent associations after all?  
<-> social psychological literature
- no context effect in attitudes towards regional vs. standard accent in Flanders?  
<-> previous linguistic studies
- problem in experiment setup?  
→ not straightforward to implement context in IAT
- importance individual speakers
- relation IAT results – explicit ratings

thank you!

for further information:

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<http://www.ling.arts.kuleuven.be/qlvl/laura>



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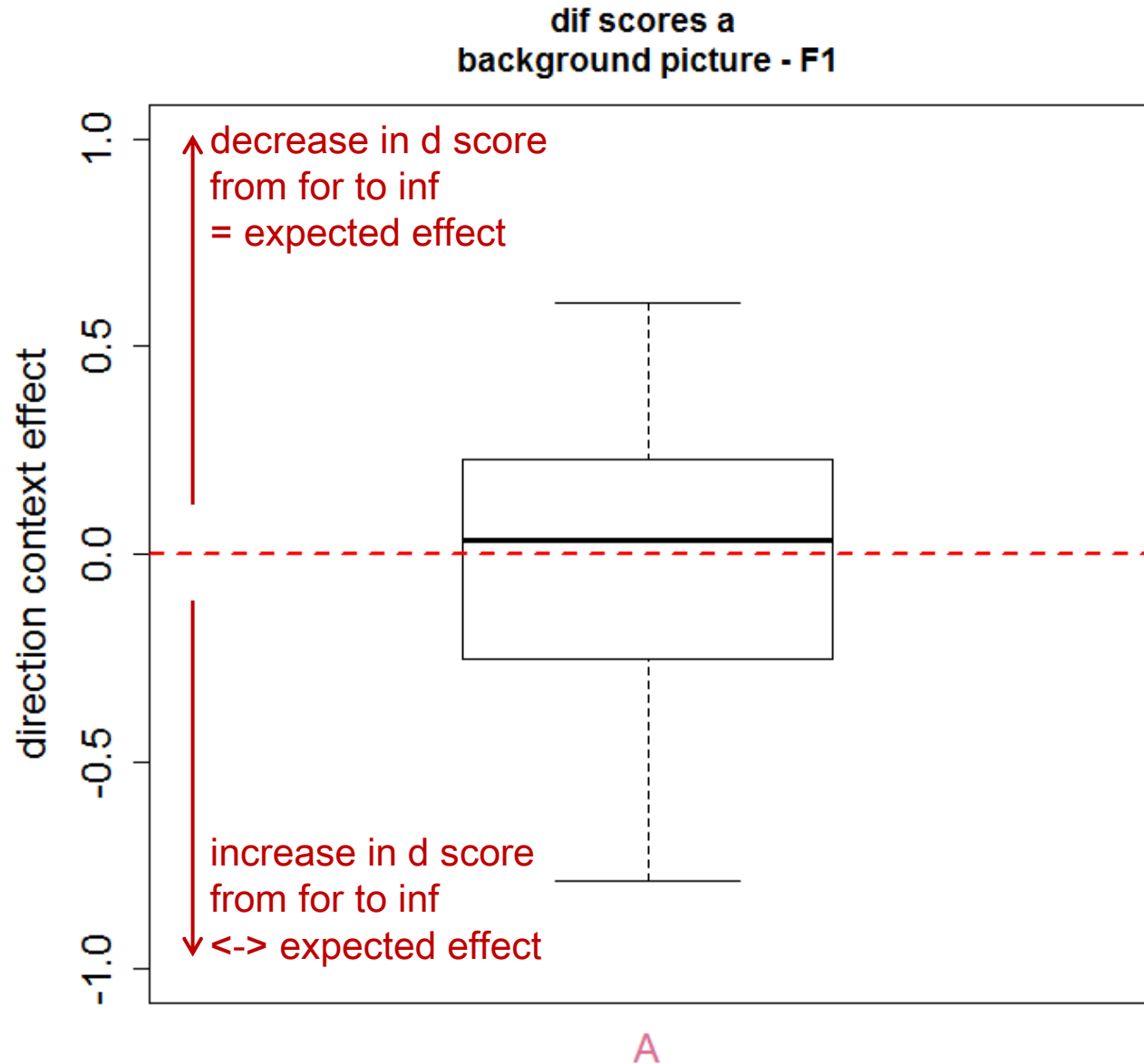
## references

Wittenbrink, B., Judd, C. M., & Park, B. 2001. Evaluative versus Conceptual Judgments in Automatic Stereotyping and Prejudice. *Journal of Experimental Social Psychology*, 37(3), 244–252.



# case study: results

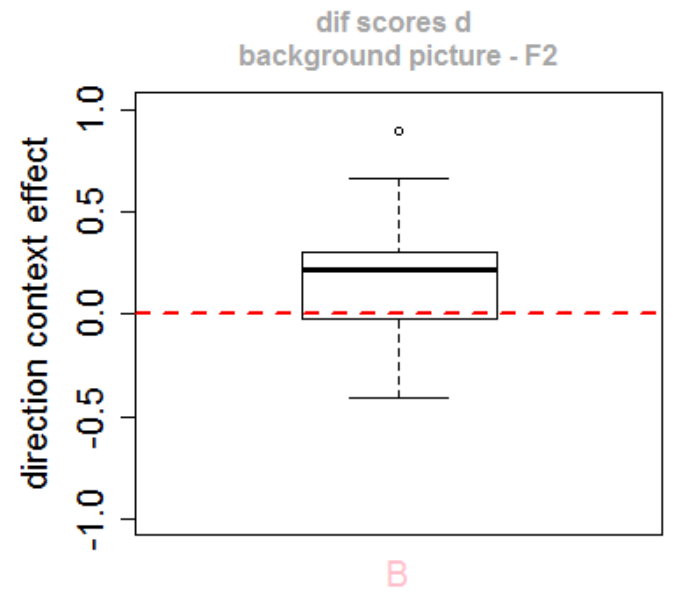
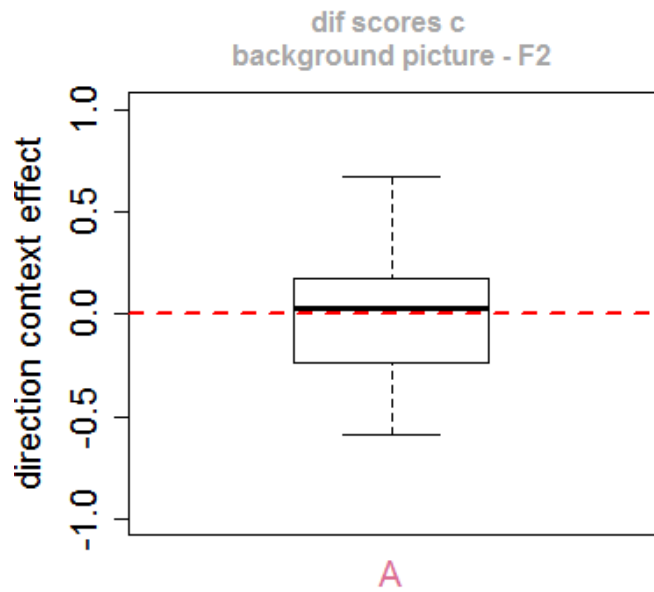
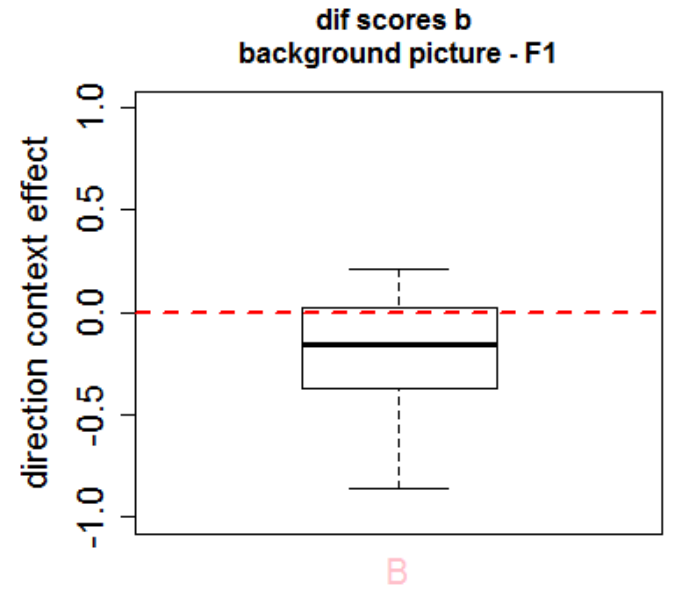
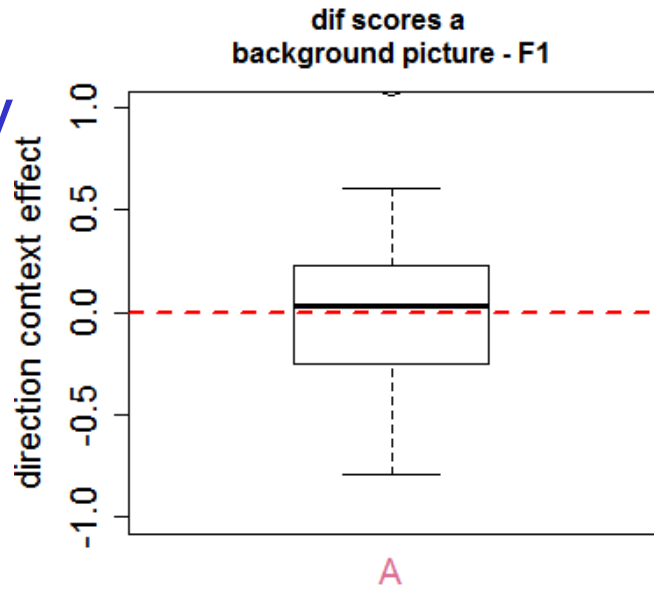
- P-IATs



# case study

- P-IATs

background picture



# case study

- P-IATs

sequence of pictures before each block of IAT

