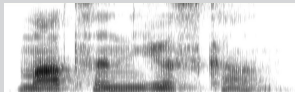


Inverted priming effects when perceiving ‘Scouse’

Albert-Ludwigs-Universität Freiburg



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The 7th Northern Englishes Workshop, Edinburgh
14.04.2016

Exemplar priming

Niedzielski 1999; Hay, Nolan, and Drager 2006; Hay and Drager 2010



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method

- play identical material to subjects
- provide social information about speaker

results

- social information influences perception
- people hear Canadian (Australian) vowels when they are told the speaker is from there

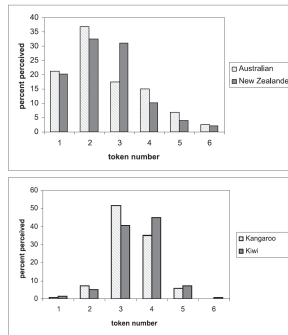


Figure 5. Results for [ɪ] from Hay et al. (2006a) (top panel), and the stuffed toy manipulation (bottom panel). Data shown are for female participants only. Lower token numbers reflect more Australian-like variants

(Hay and Drager 2010)

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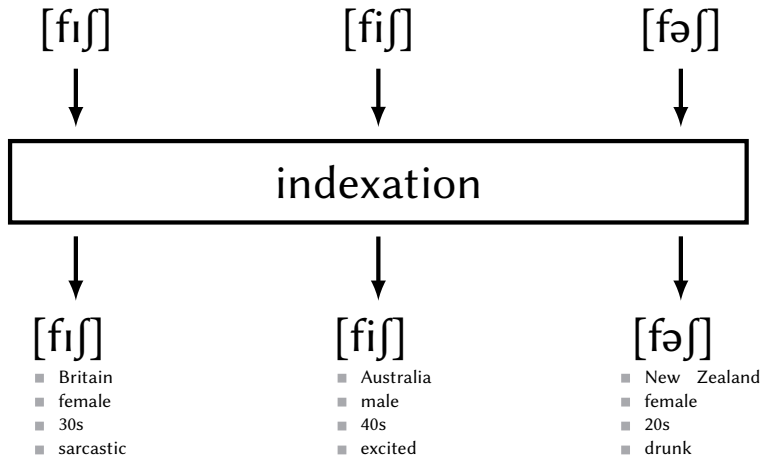
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Exemplar theory

Pierrehumbert 2006



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The problem of replication



- not all priming studies have managed to find a significant effect (Juskan 2011; Lawrence 2015)
- previous research has focused on heavily stereotyped vowels

main hypothesis

highly salient variables will create a more pronounced priming effect in perception than less salient ones

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Why Liverpool?



- Scouse is “well known to most British people, and very distinctive” (Trudgill 1999: 70)
- Scouse is among the most heavily stigmatised varieties in the UK (Montgomery 2007)



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vowels

happy-tensing

happy realised with a tense [i] instead of a lax [ɪ]

consonants

velar nasal plus

<ng> is realised as [ŋg], *singer* rhymes with *finger*

(less salient)

NURSE-SQUARE merger (towards [ɛ])

fair and *fur* are (near-)homophones for many Liverpool speakers

lenition of /k/

/k/ is either an affricate [kx], or a fricative [ç, x], especially in intervocalic and word-final-contexts

(highly salient)

(among others: Trudgill 1999; Watson and Clark 2013; Honeybone and Watson 2013; Watson and Clark 2015)

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Stimulus generation - general



- 1 48 carrier sentences (6 pairs per variable) were recorded by a linguist from Manchester
example:
 - People in that town almost never went to **church**.
 - In that town **church** was not popular with people.
- 2 using Praat scripts, keywords were extracted automatically from the sentences and four different versions were resynthesised
 - (1) hyper-Mancunian/standard version
 - (2) actual Mancunian/standard sound as heard in the sentence
 - (3) light Scouse version
 - (4) very Scouse version

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- administered using SoSciSurvey.de
- participants randomly assigned to one of two groups
 - I. primed for Liverpool
 - II. primed for Manchester
- new randomised order for every subject
- answer and reaction time automatically recorded and saved (observations with $RT < -2000ms$ or $> 4000ms$ were discarded)
- information on subjects' gender, age, regional origin, education, and profession collected



23% completed

Liverpool

2. Which word sounds most like the one you heard in the sentence?

Focus on the underlined sound.

All his life, he had wanted to be a nrse

sound 1

sound 2

sound 3

sound 4

[M.A. Marten Juskan](#), Albert-Ludwigs-Universität Freiburg im Breisgau – 2014

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Participants



	'Liverpool'		'Manchester'	
	F	M	F	M
wc	2	3	1	1
mc	17	6	9	16

- 58 subjects from outside of Liverpool (2508 observations)
- (results from 9 Liverpoolian subjects are comparable, but not included in this paper)



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mixed linear effects models



- mixed linear effects regression models were fit by hand
- random intercept for subject
- random slope for subject X order of stimuli

significant factors:

- happy ($\kappa = 10.61$)
 - position; $p < 0.001$
 - (distance); $p = 0.084$
- /ŋg/ ($\kappa = 7.88$)
 - (prime); $p = 0.057$
 - (age); $p = 0.010$
 - environment; $p = 0.002$
- NURSE ($\kappa = 8.05$)
 - prime; $p = 0.022$
 - position; $p < 0.001$
 - (stimulus order); $p = 0.093$
- /k/ ($\kappa = 7.9$)
 - prime; $p = 0.838$
 - class; $p = 0.002$
 - environment; $p < 0.001$
 - (distance); $p = 0.092$
 - (prime X class); $p = 0.075$

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happy and /ŋ(g)/



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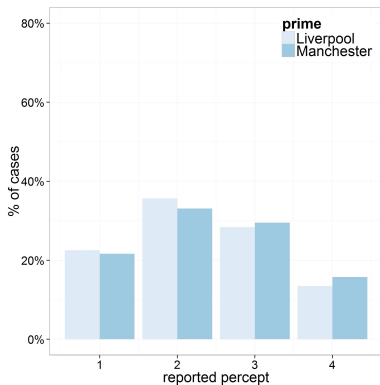
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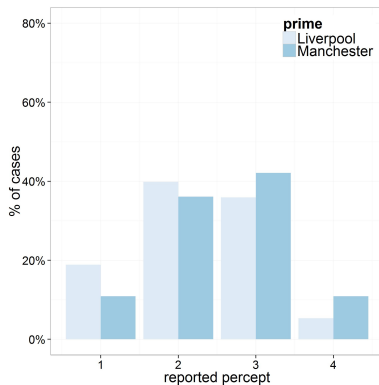
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(a) happy, $p = 0.771$



(b) /ŋ(g)/, $p = 0.003$

NURSE and /k/



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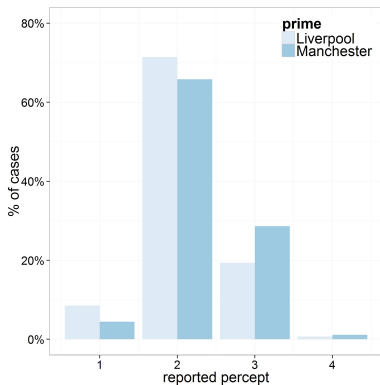
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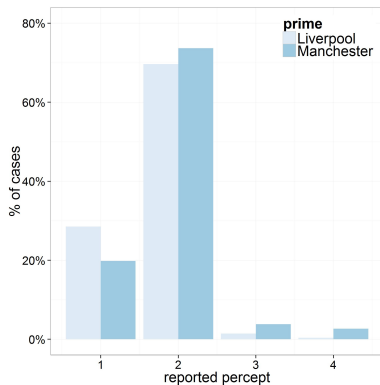
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(a) NURSE, $p = 0.017$



(b) /k/, $p = 0.006$

/k/ by social class



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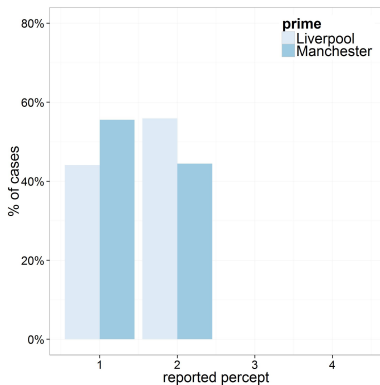
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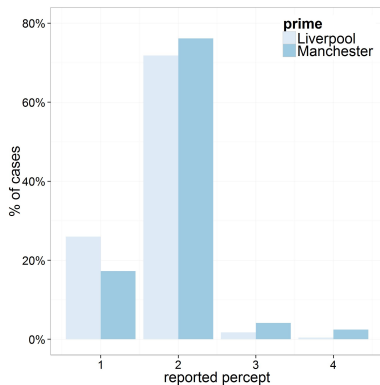
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(a) /k/ working class, $p = 0.622$



(b) /k/ middle class, $p = 0.020$

Direction of effect due to attitude?

Hay and Drager 2010



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New Zealand women

- neutral or positive attitudes towards Australia
- Australian exemplars activated
- effect in expected direction

New Zealand men

- negative attitudes towards Australia (< sports rivalry)
- NZ exemplars activated (dissociation)
- effect in opposite direction

- possible explanation for responses of participants living elsewhere (< bad reputation of Liverpool and Scouse), BUT
- Liverpudlian subjects show the same inverted effect!

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Relative hostility

Herr 1986



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- Subjects are given a neutral description of a fictitious person ‘Donald’
- hostility ratings differ depending on the prime
 - 1 very nonhostile person (Pope John Paul, Santa Claus)
→ Donald rated **hostile**
 - 2 somewhat nonhostile person (Henry Kissinger, Robin Hood)
→ Donald rated nonhostile
 - 3 somewhat hostile person (Menachem Begin, Alice Cooper)
→ Donald rated hostile
 - 4 very hostile person (Adolf Hitler, Dracula)
→ Donald rated **nonhostile**

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Assimilation and contrast effects

Herr 1986



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- 1 'moderate' primes create assimilation effects
 - (ambiguous) input is comparatively similar to primed category
 - primed category is used for classification of stimulus
- 2 'extreme' primes create contrast effects
 - (ambiguous) input is very different from primed category
 - stimulus is not included in primed category, BUT
 - prime can still serve as perceptual baseline, which shifts stimuli towards the other end of the scale

→ 'Canada' ('Australia') is a moderate prime in the US (NZ)
→ 'Liverpool' is an extreme prime in (Northern) England

phonetic similarity
phonetic divergence

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- 1 salience of the variable seems to play a role
 - no priming effect for happy, weak one for velar nasal plus
 - relatively pronounced priming effects for NURSE and /k/-lenition
 - some (!) evidence for impact of social factors
- 2 direction of effect depends on extremeness of prime
 - only very similar varieties create a positive effect
 - phonetically very different varieties create a contrast effect or no effect at all

→ social priming only works when a number of requirements are met

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