

Masked Morphological Priming in Written and Spoken Language

Roberto Bottini and Davide Crepaldi

University of Milano Bicocca
Milan Center for Neuroscience (NeuroMi)
Italy

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Morphology

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- ▶ Systematic mapping between form and meaning
- ▶ Language evolution (e.g., BIOWEAPON, GUESSTIMATE)
- ▶ At the heart of human language communicative power

Morphemes in visual word identification

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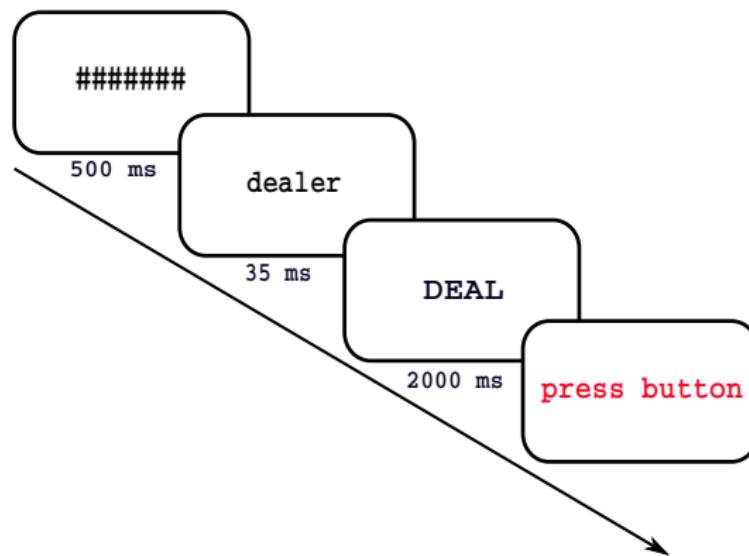
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Morphemes in visual word identification

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(Taft & Forster, JVLVB 1975)
- ▶ Patients good at lexical decision on NOSE, but not on NOSES (Luzzatti et al., B&L 2001)

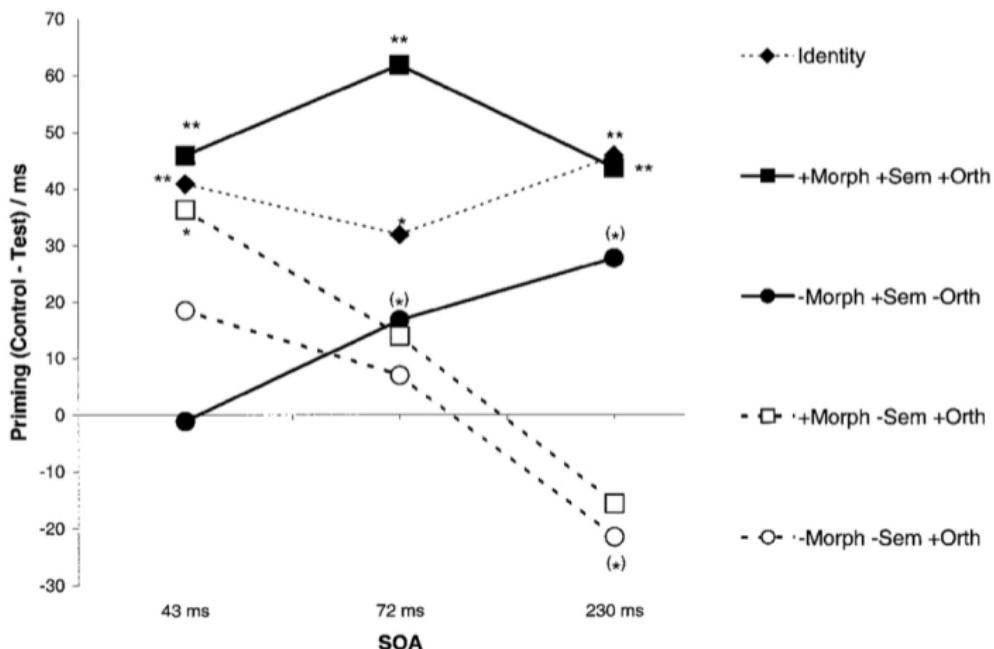
Morphological priming

Morphological priming



Masked morphological priming, visual

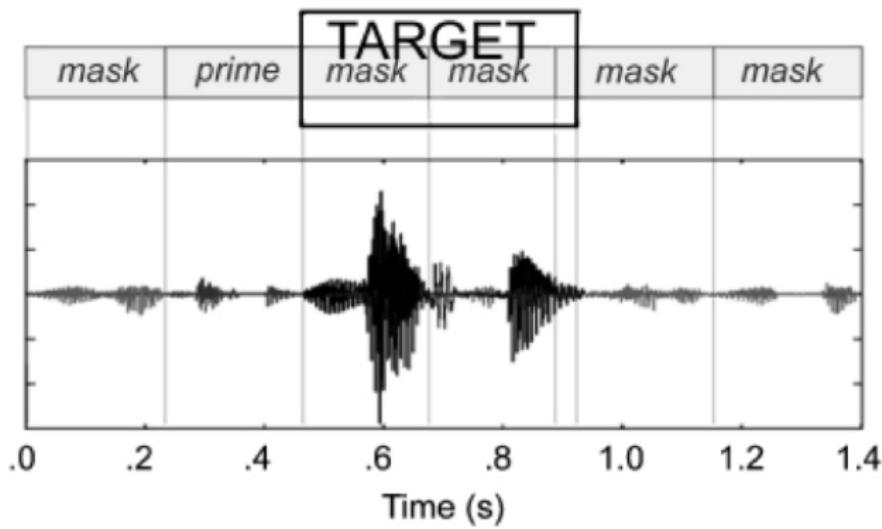
Masked morphological priming, visual



[Rastle et al., LCP, 2000]

Masked morphological priming, acoustic

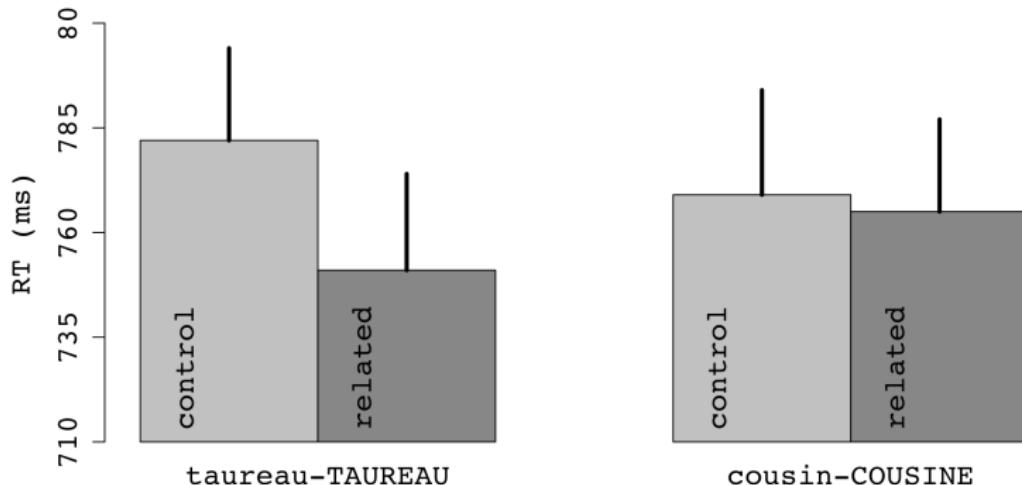
Masked morphological priming, acoustic



[Kouider & Dupoux, Psych Science, 2005]

Masked ACOUSTIC morphological priming

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A modality asymmetry?

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- ▶ Prime visibility/audibility

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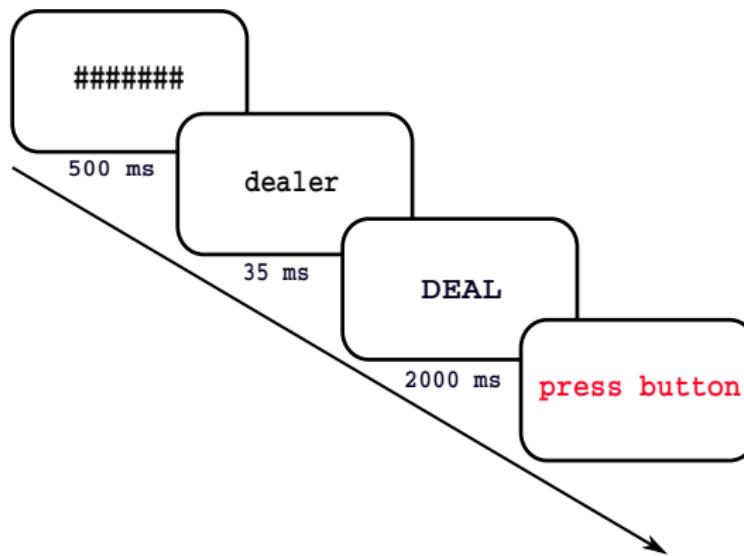
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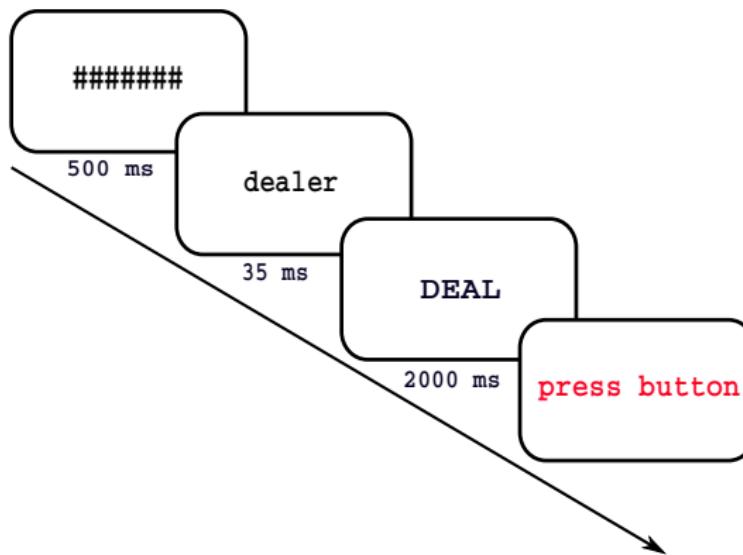
- ▶ Same targets across modalities
- ▶ Prime visibility/audibility controlled
- ▶ Derivational morphology
- ▶ Diverse, productive suffixes

Visual masked priming

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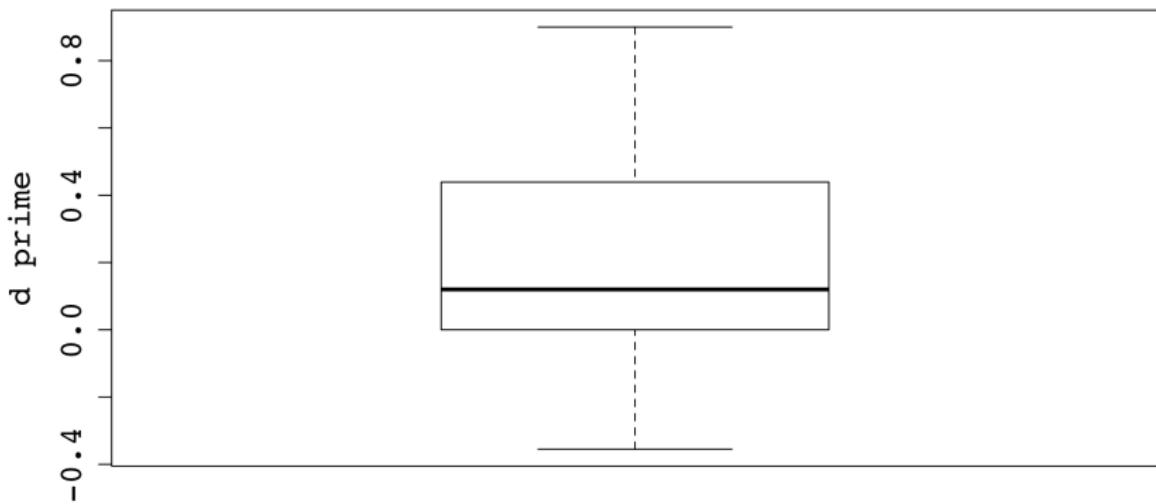
Visual masked priming



fury-FURY (vs. copy-FURY)
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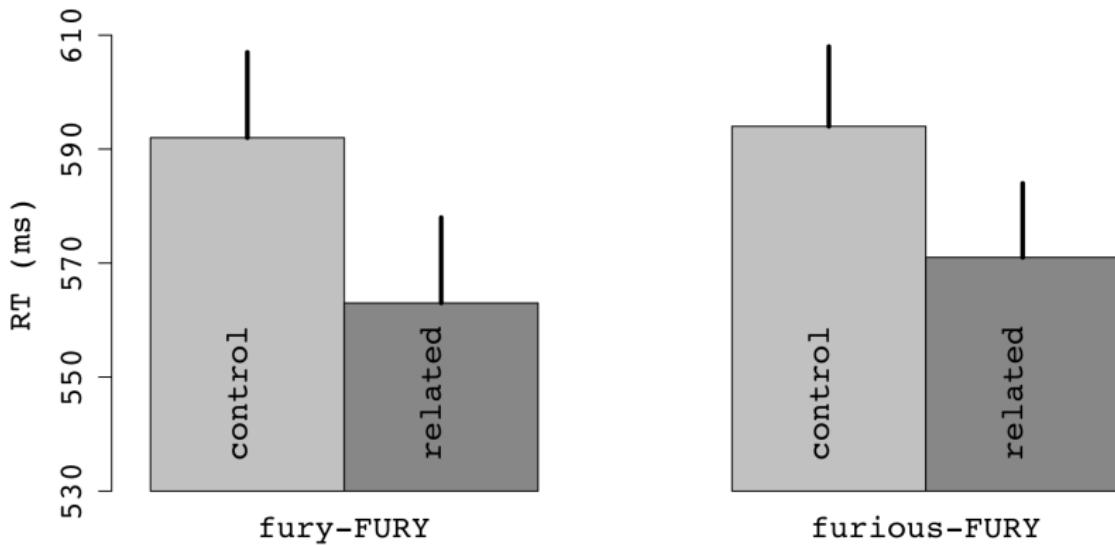
Prime visibility

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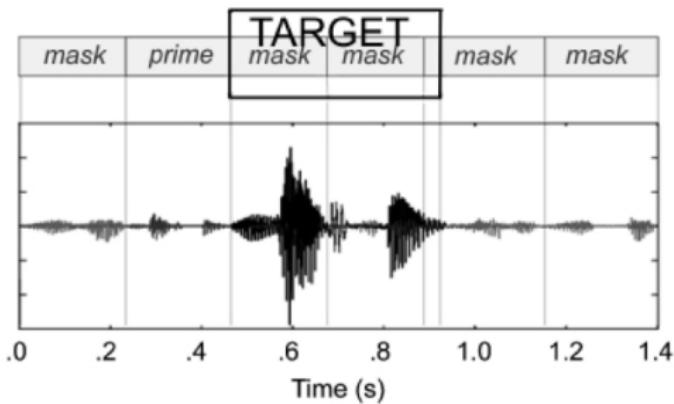
Priming pattern

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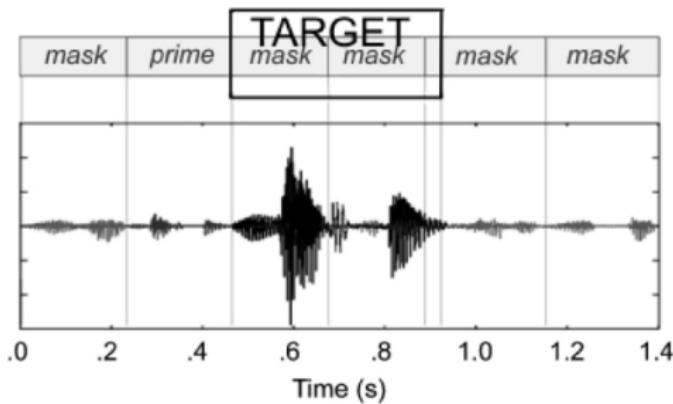


Speech masked priming

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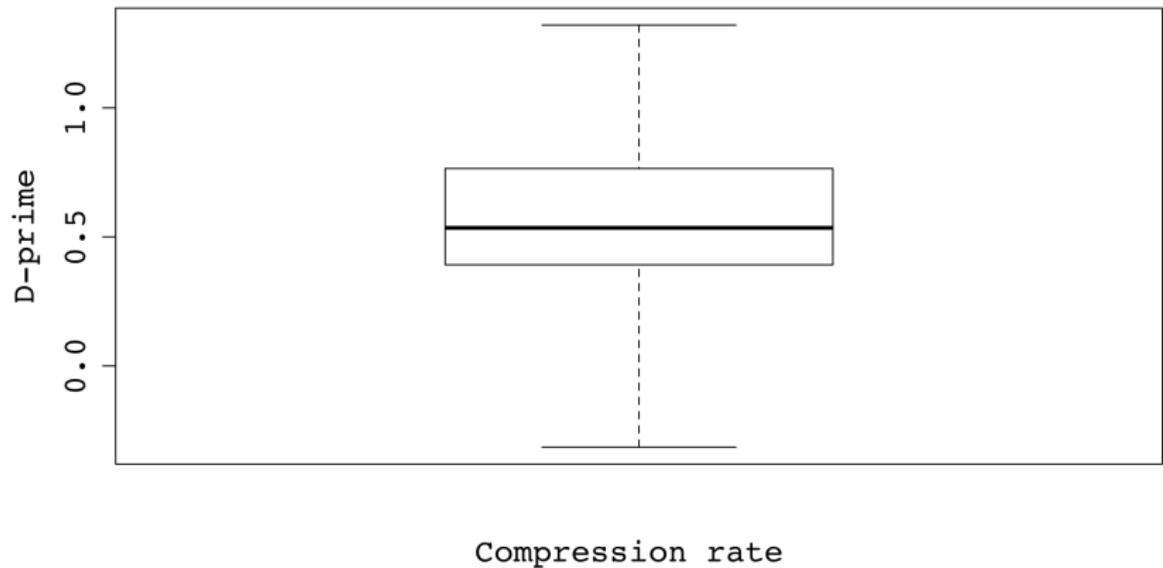
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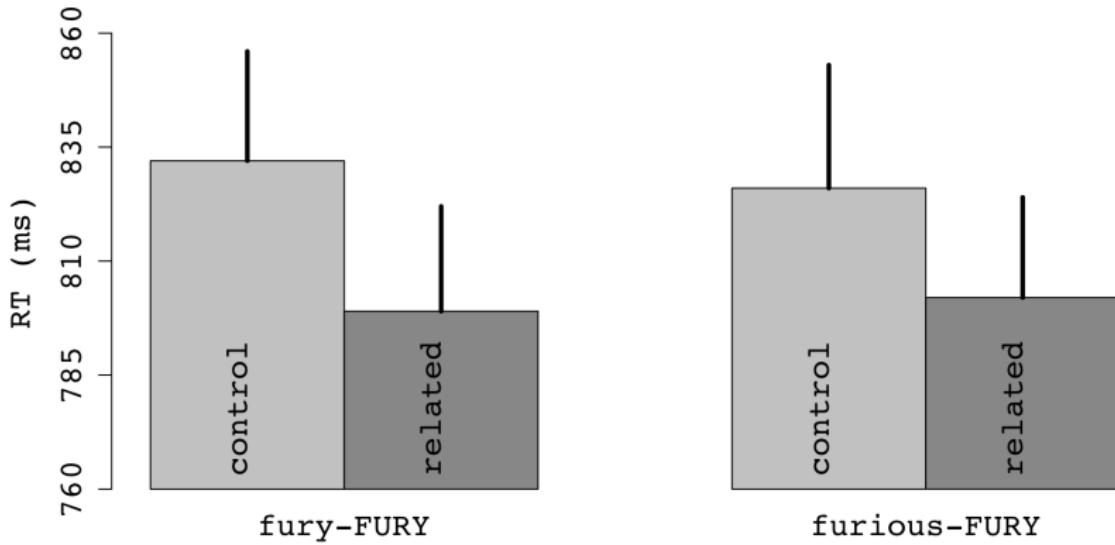
Prime audibility

Prime audibility



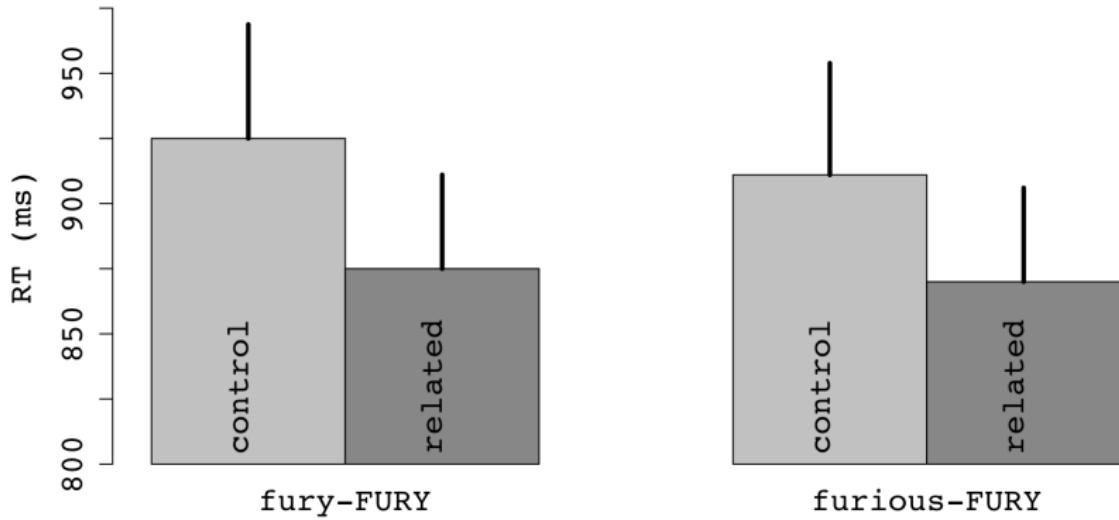
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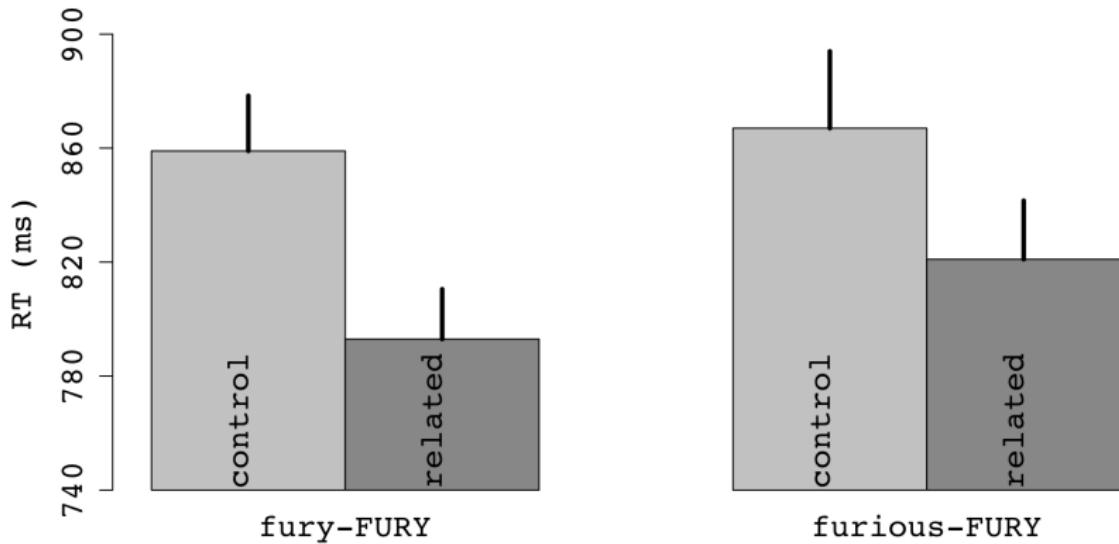
Audibility and priming, check #1

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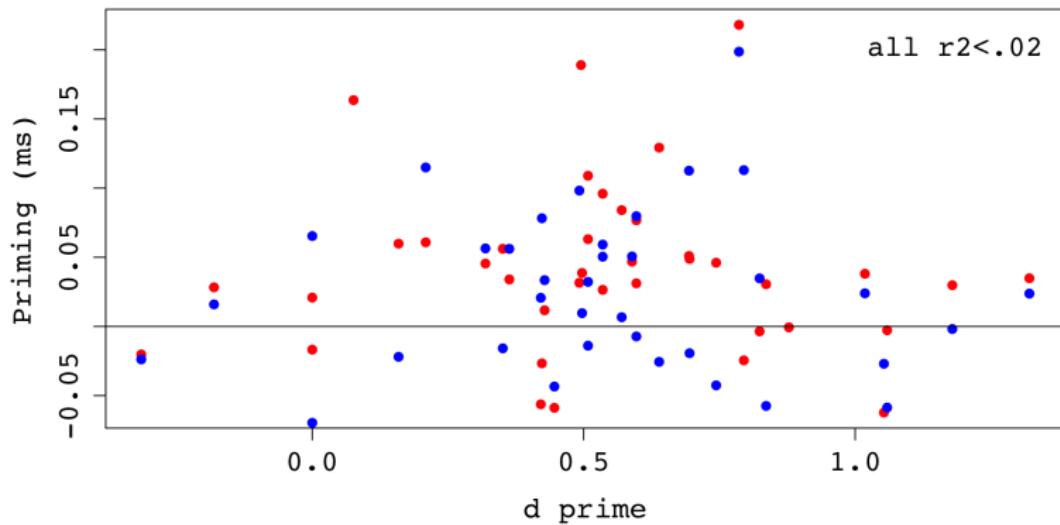
Audibility and priming, check #2

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Audibility and priming, check #3

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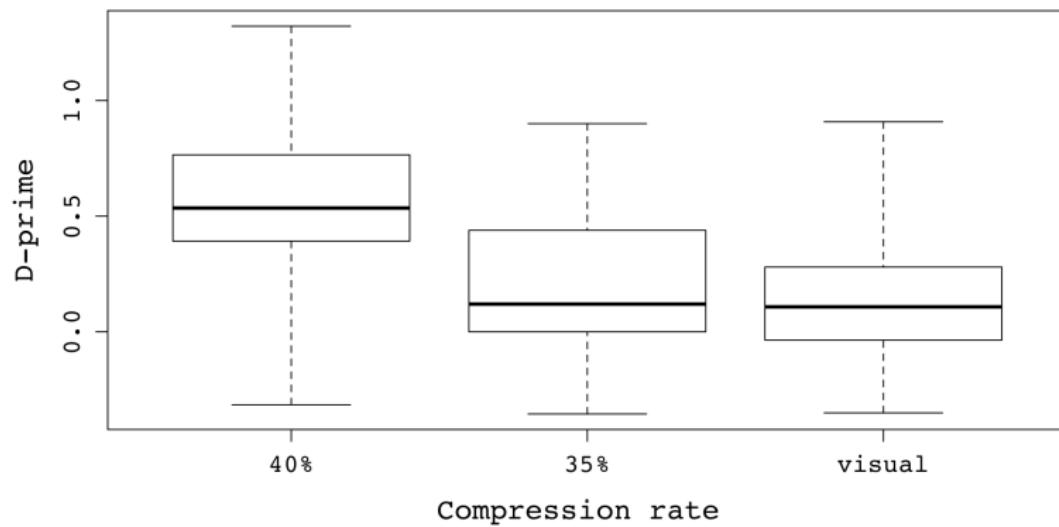
- ▶ Early level of morphological analysis
- ▶ Form vs. meaning

Thank you!

bottini.r@gmail.com
davide.crepaldi@gmail.com
www.davidecrepaldi.net

Prime audibility

vs. visual:



Prime audibility

- ▶ Effective masking both with 35% and 40% CR
- ▶ 35% CR close to the visual experiment
- ▶ 40% CR close to Kouider & Dupoux (2005)

Visual vs. acoustic lexical identification

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Repetition vs. morphological priming

- ▶ No interaction between prime type and modality
- ▶ Even stronger symmetry

Visibility and priming, check #2

