FOCUS!
Learning to shield visual search from distractors

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Is the book about SQL red, green or blue?

Adobe Photoshop CS2 User Guide

100% SQL KRIEGEL & TRUKHNOV Bible WILEY

Adobe Photoshop CS2 for Photographers Martin Evening Focal Press

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Real-Time UML Douglass Addison Wesley

LEWIS LOFTUS JAVA SOFTWARE SOLUTIONS SECOND EDITION

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Paradox for Windows 95 & Windows NT Guide to ObjectPAL Borland

PROFESSIONAL Symbian Programming CD-ROM Includes No Additional Hardware Required wrox

Pressman and Ince Software Engineering A Practitioner's Approach European Adaptation Fifth Edition McGraw Hill

Using Paradox for Windows 95 and Windows NT

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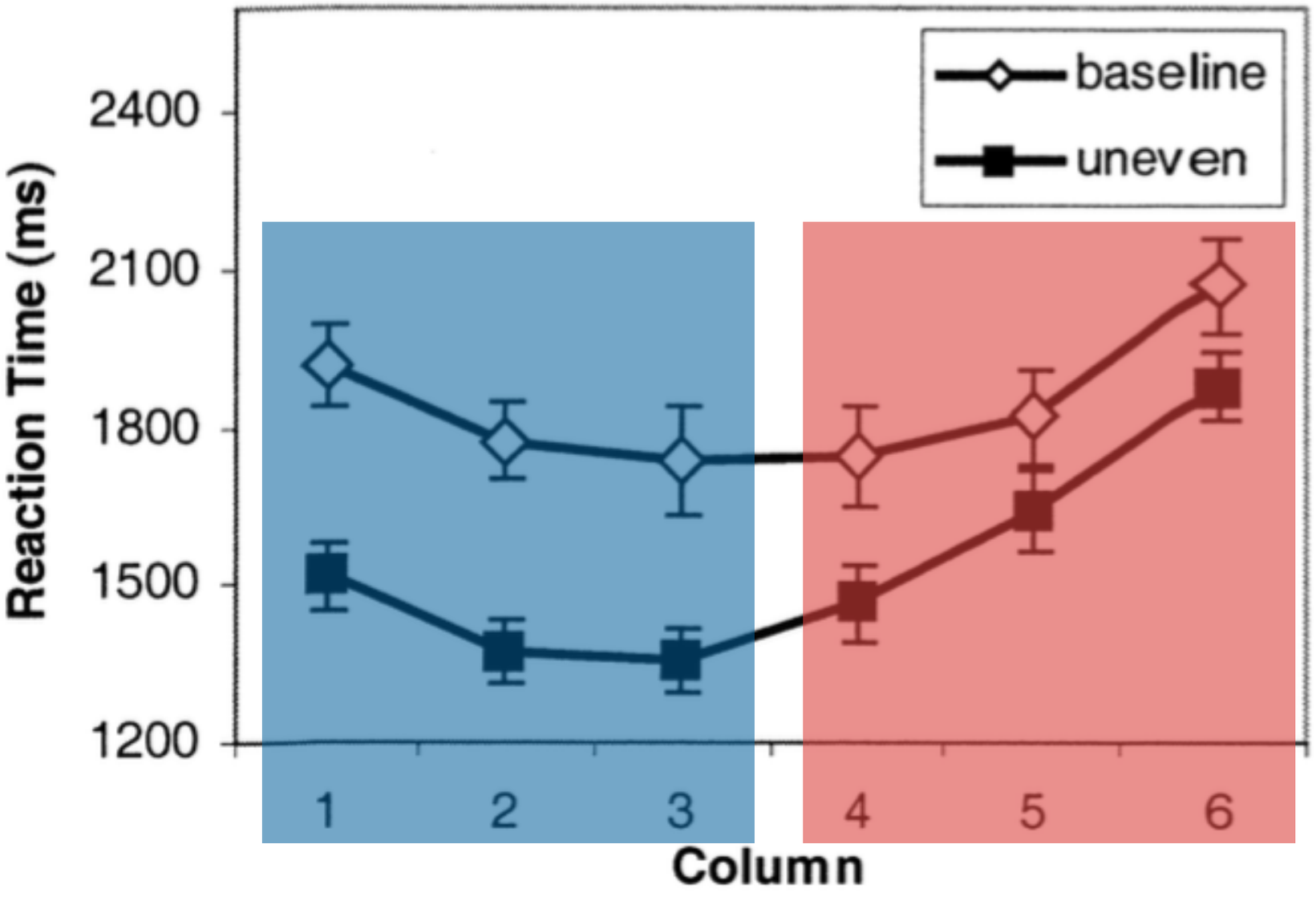
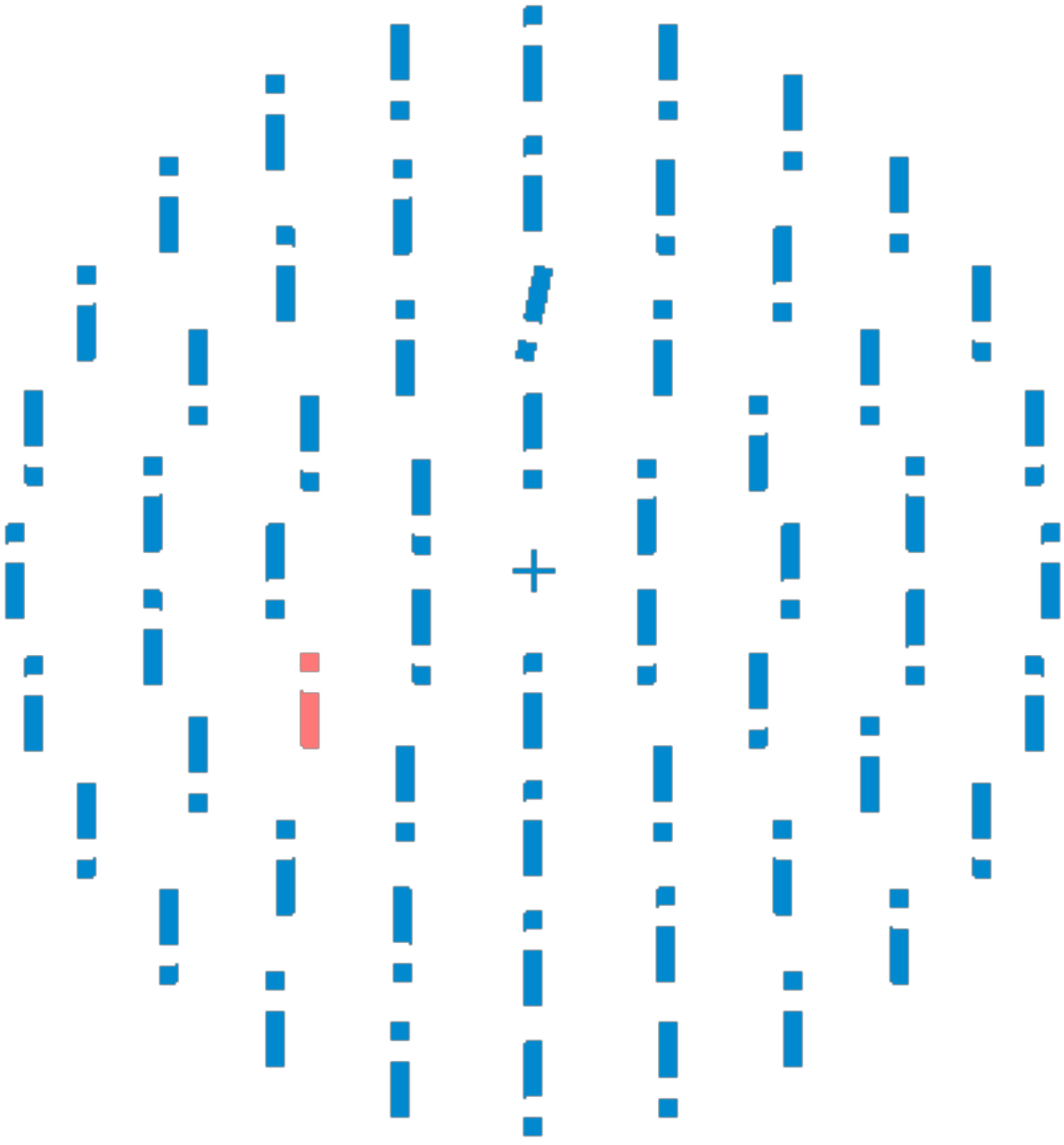
Location probability cueing



more probable **less probable**

Geng & Behrmann (2005)

Location probability cueing



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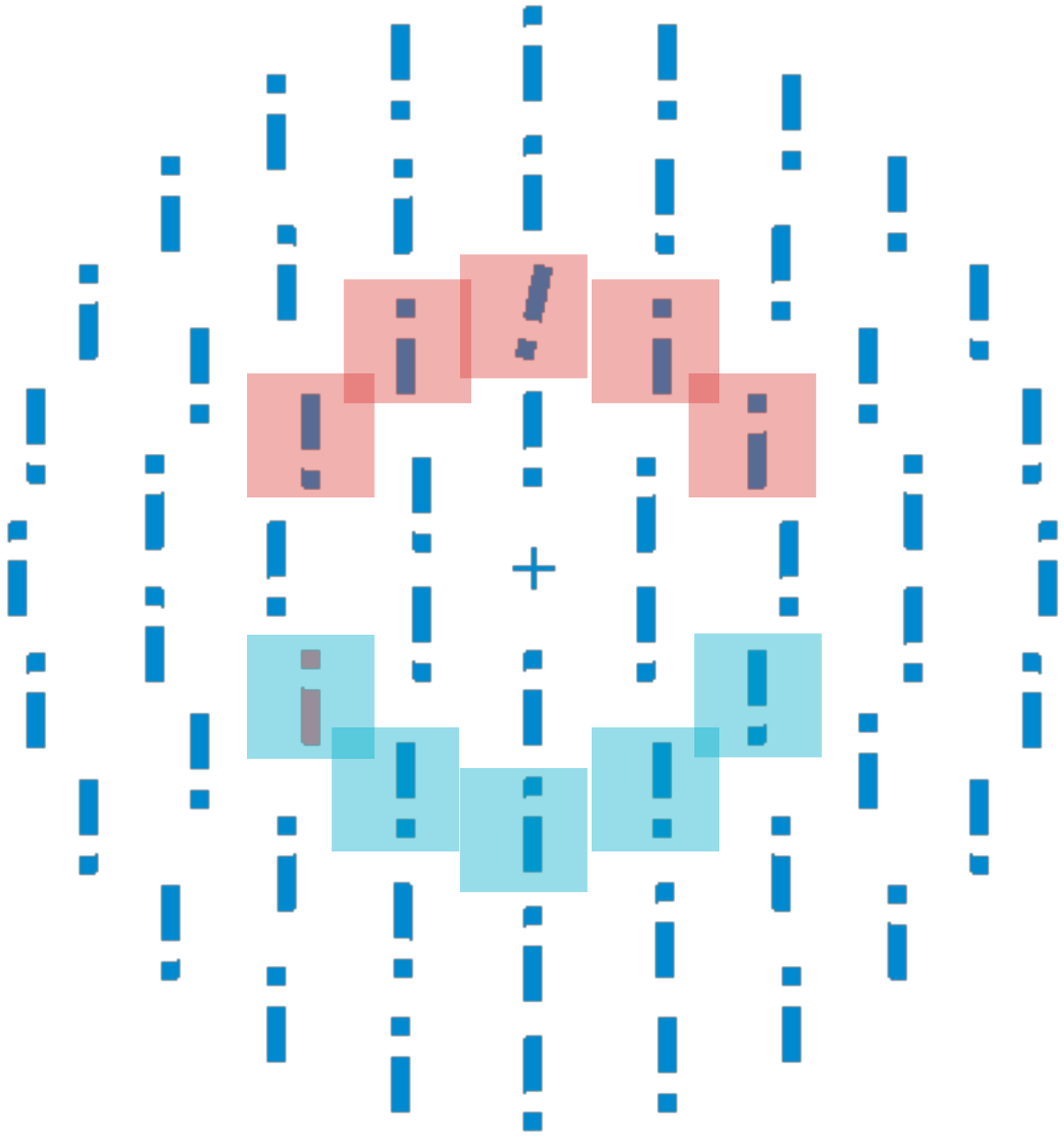

less probable (10%)

more probable (90%)

Goschy et al (2014)

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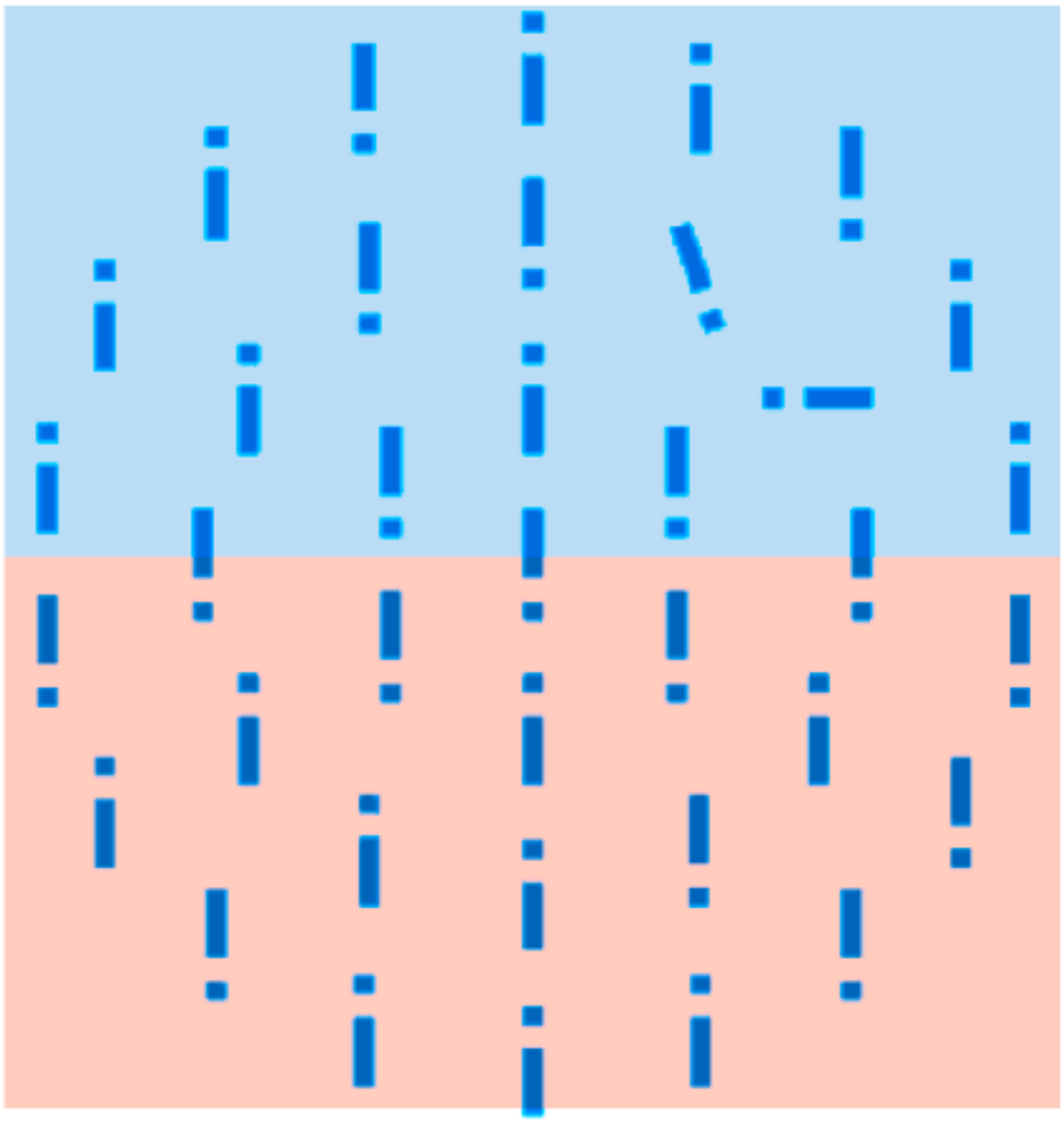
Same- vs. different dimension distractors

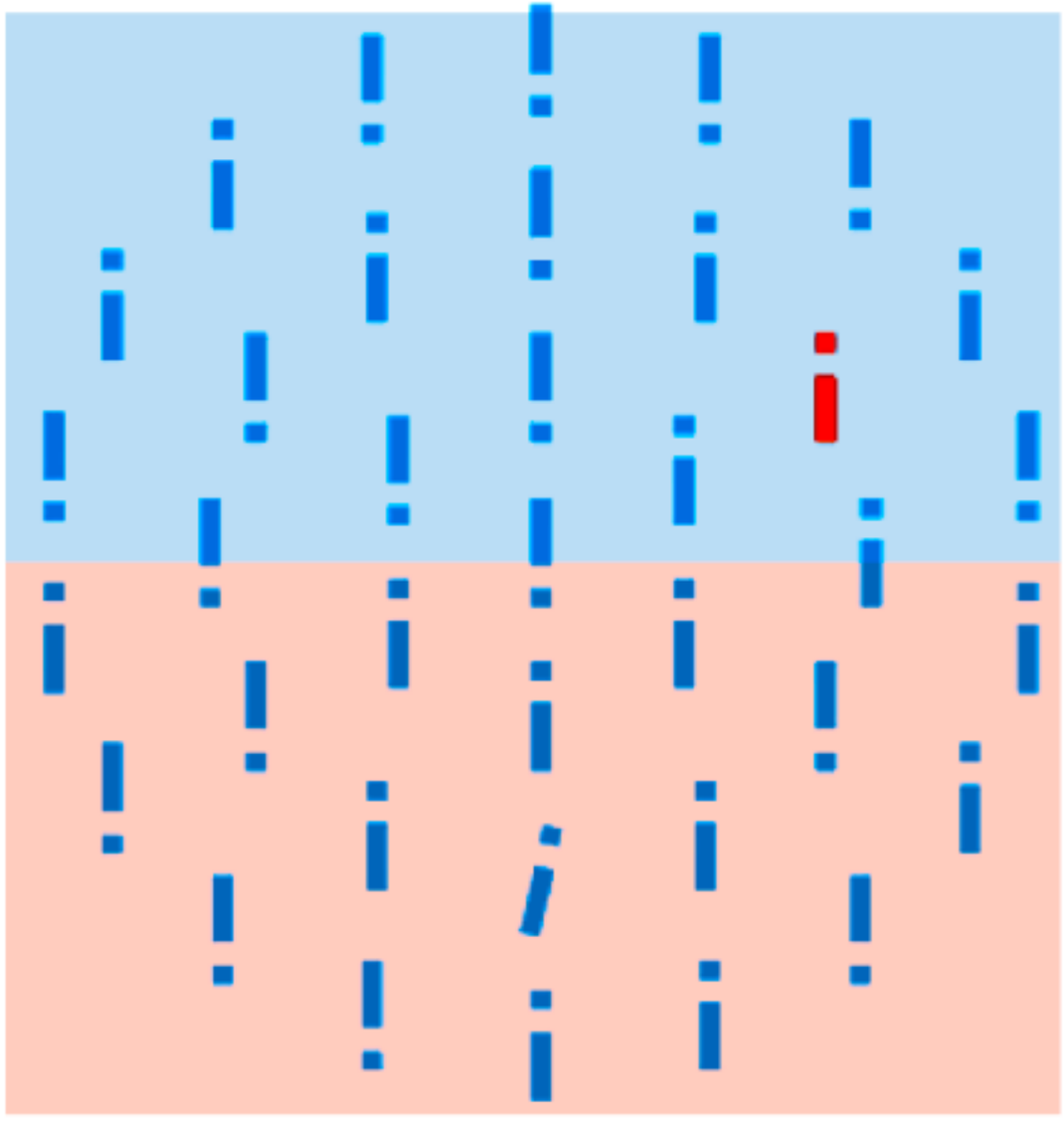


same-dimension distractor

90%

distractor probability

10%

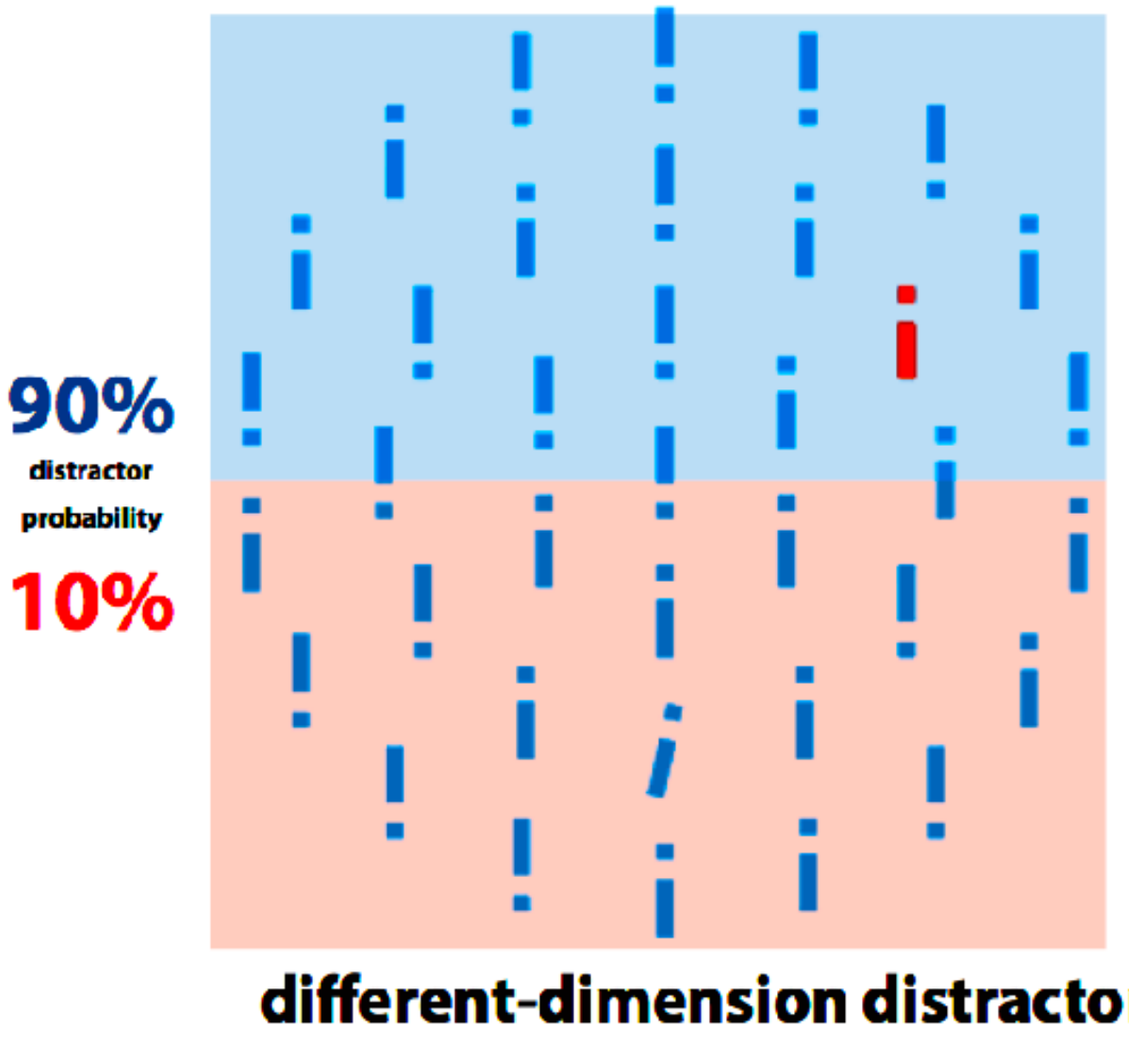


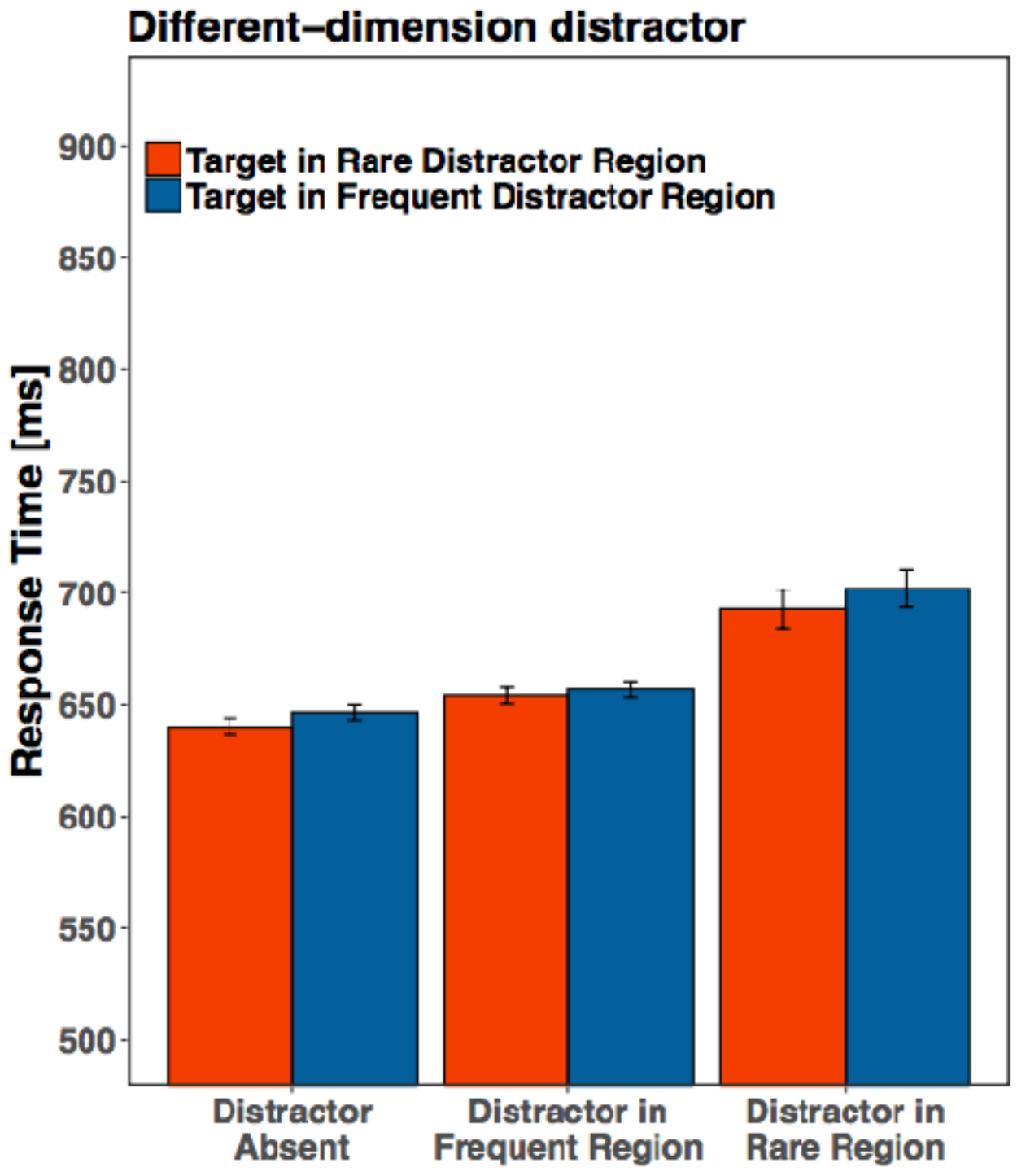
different-dimension distractor

Same- vs. different dimension distractors

- participants indicated where the “dot” or hole at the target is (top/bottom)
- 184 participants, 18-65 years old
- 800 trials; distractor-present on 50%

Same- vs. different dimension distractors





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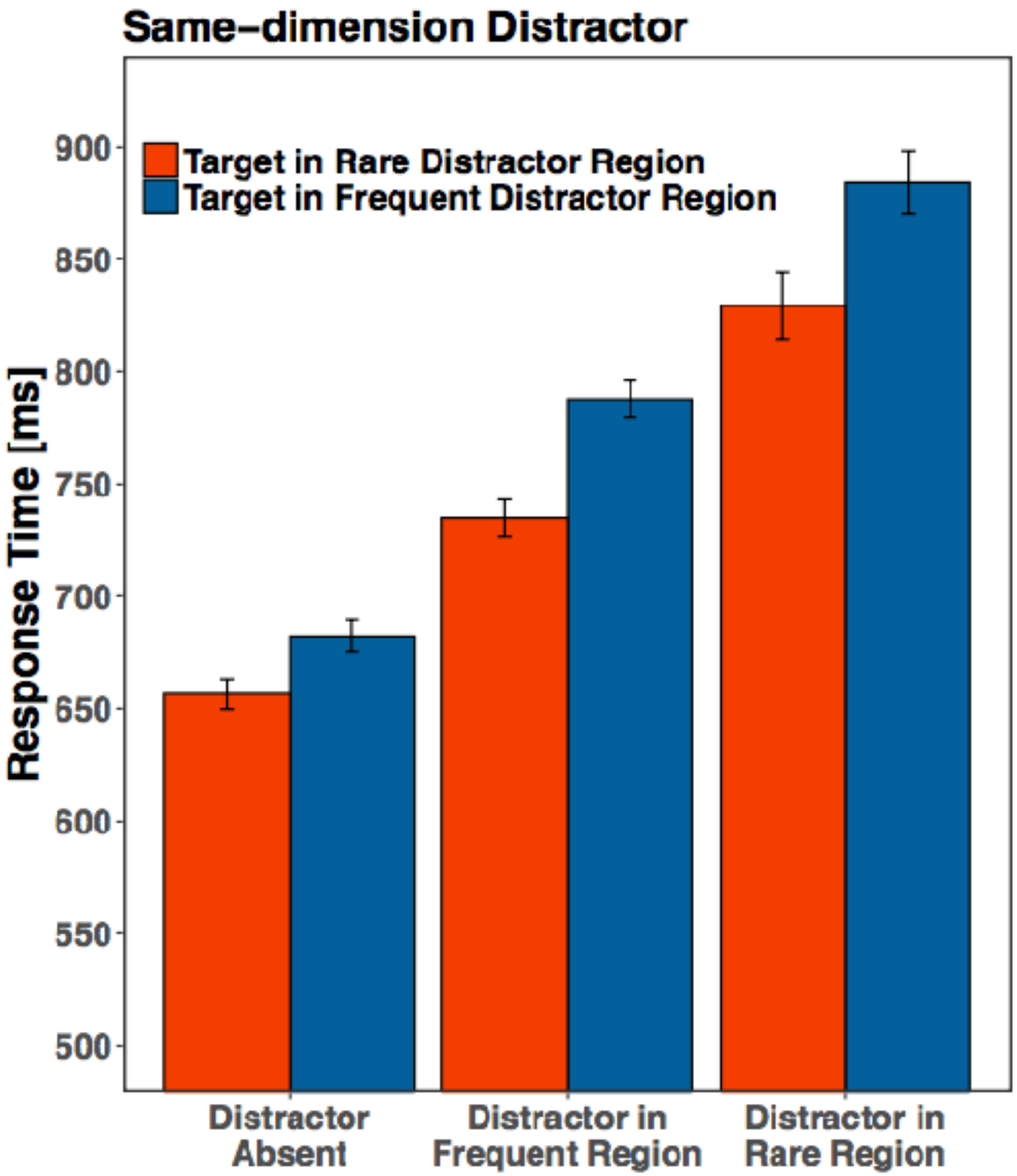

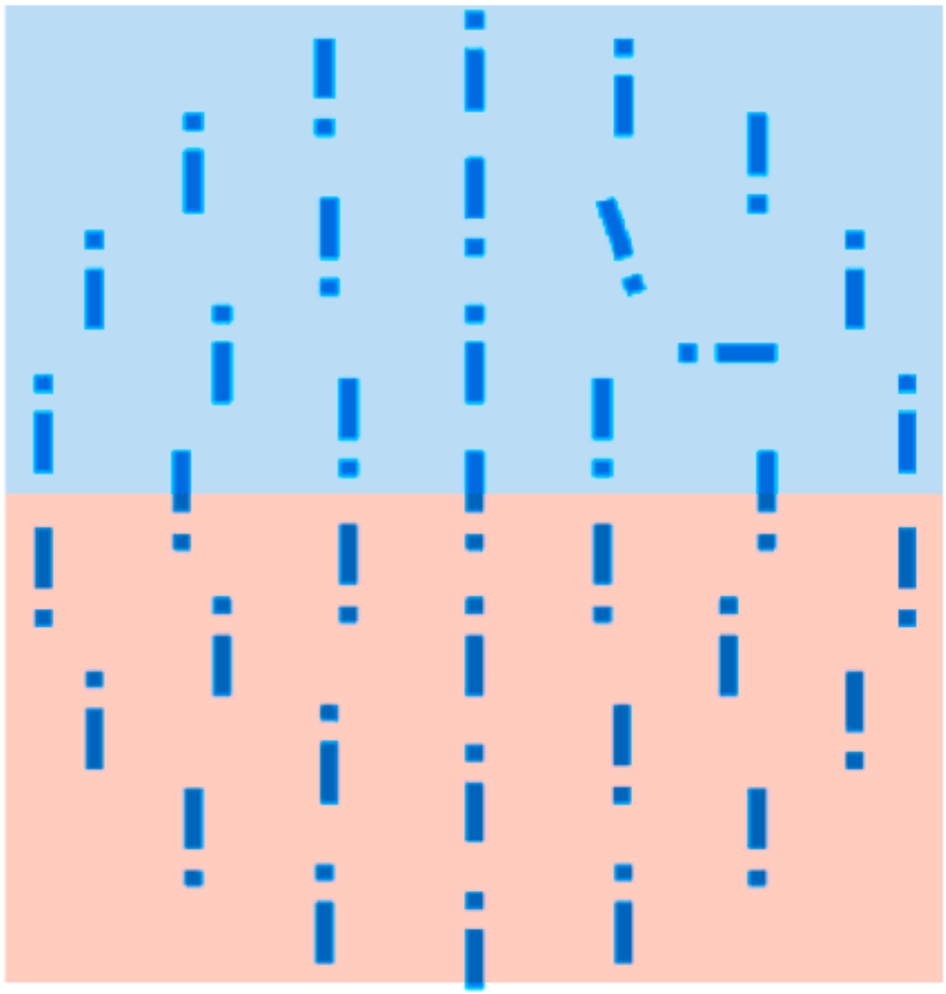

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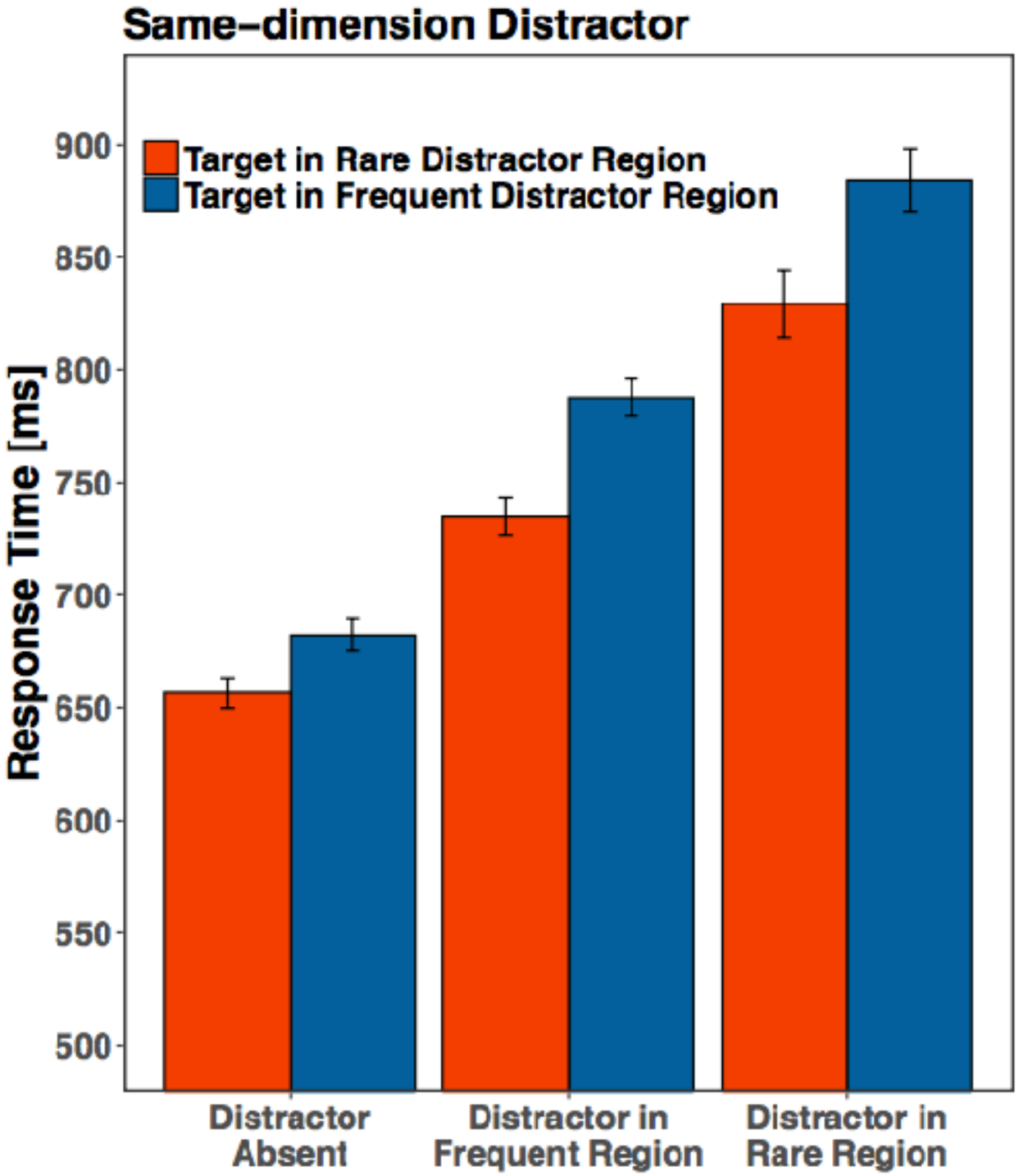
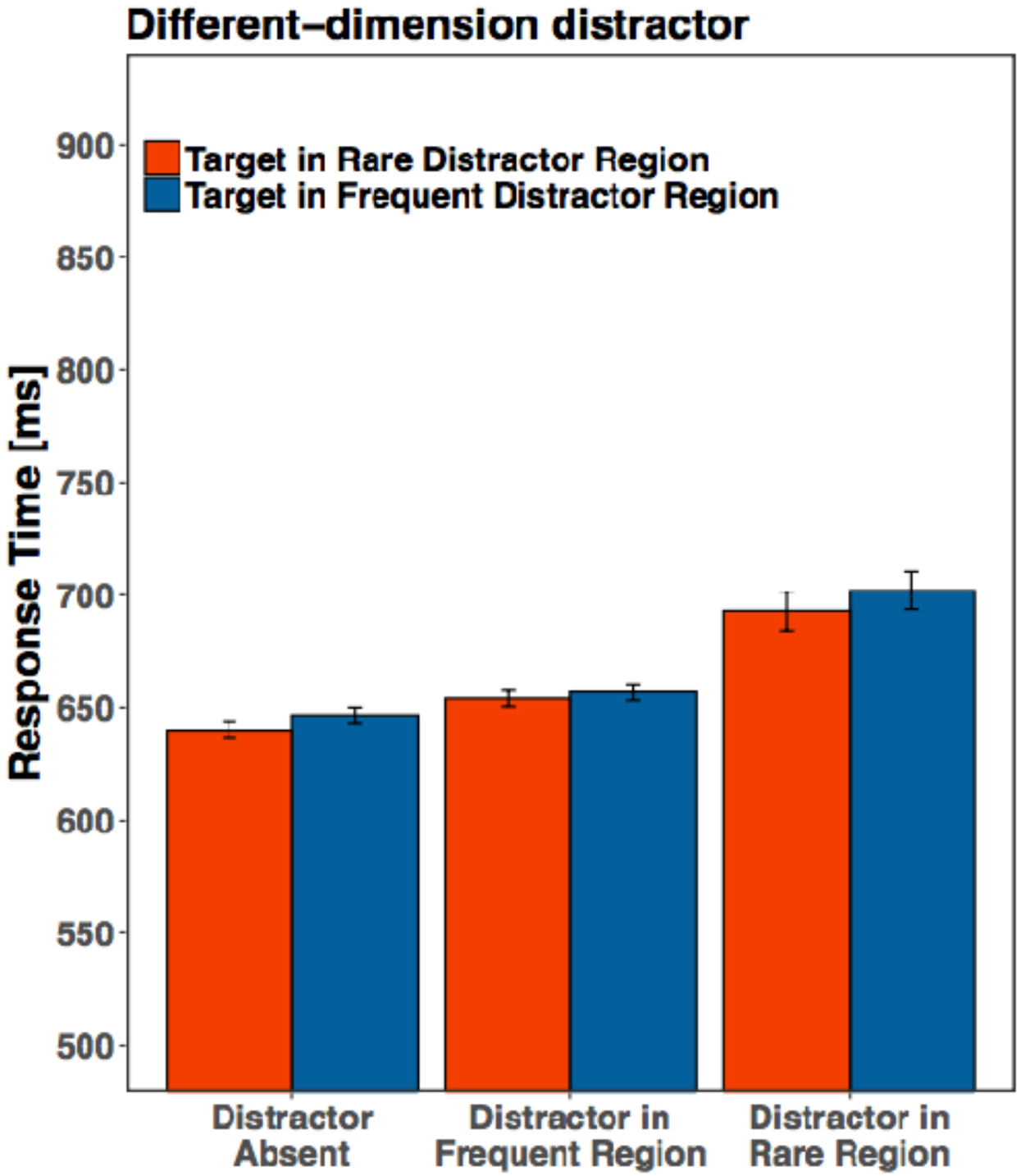
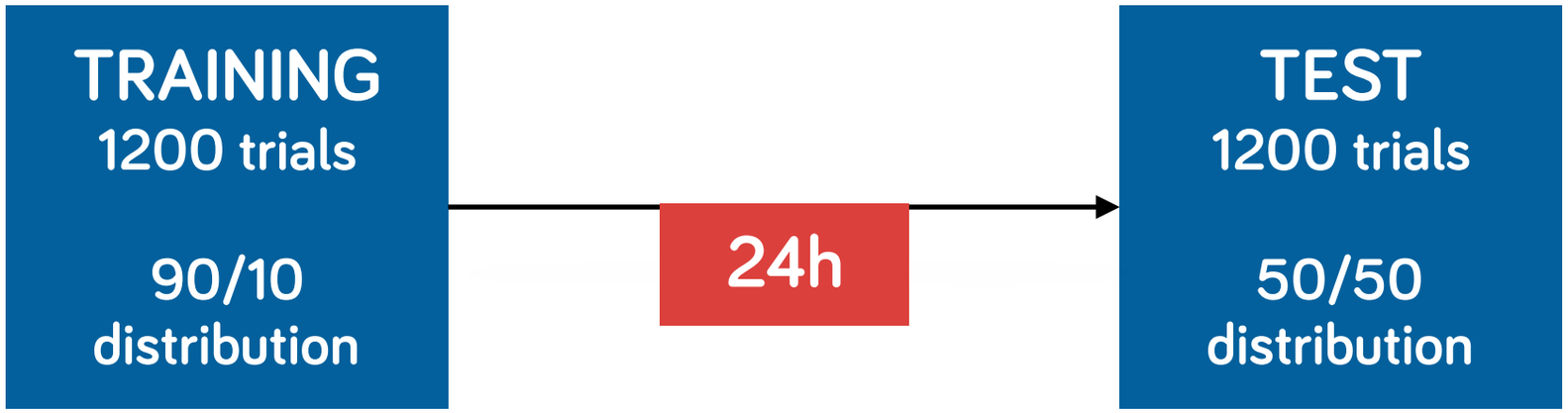




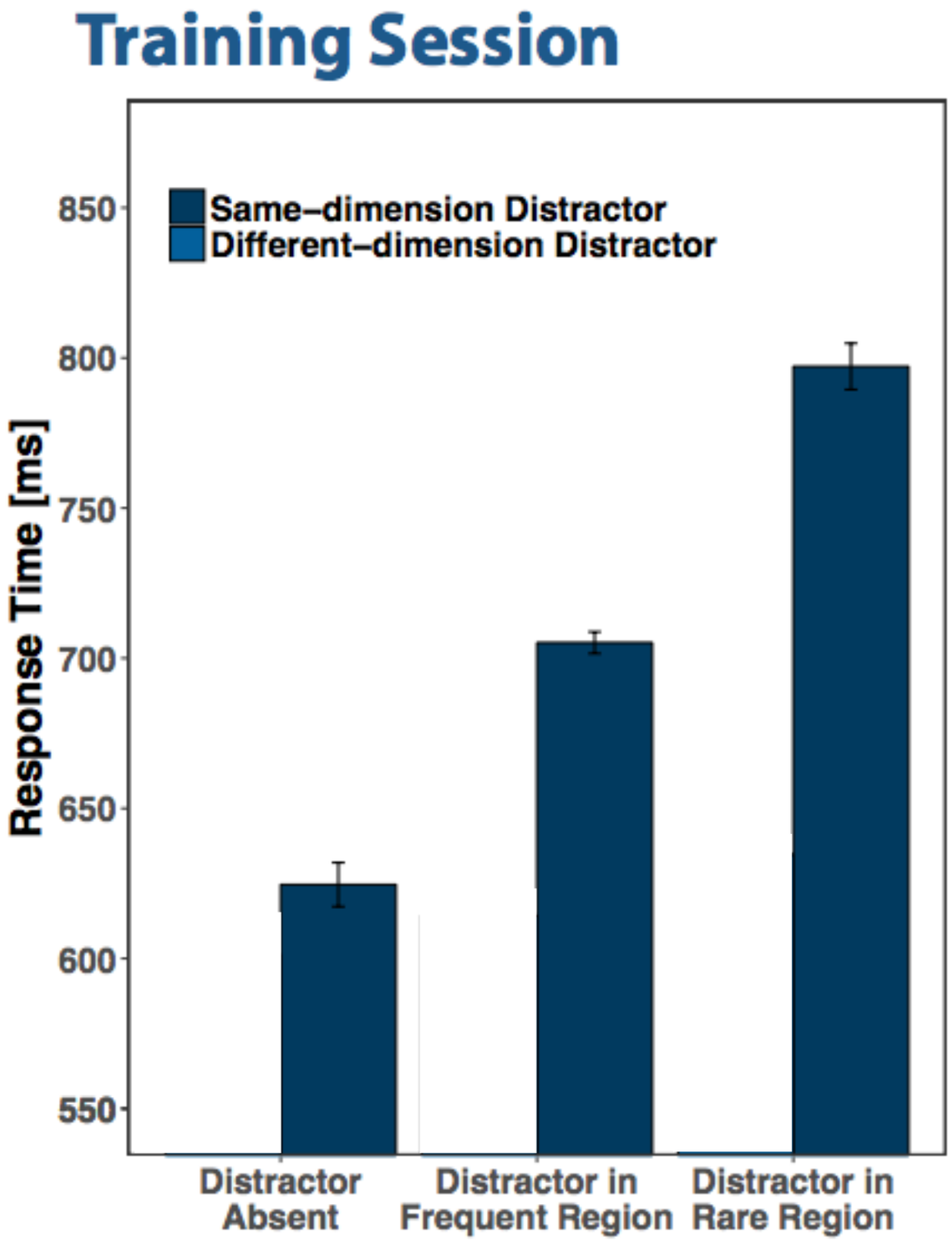
Is the learning persistent over time?

52 observers each participated in two sessions (26 same-dimension distractor)



Is there still a bias towards the frequent distractor region (i.e. probability cueing effect) in session 2?

Is the learning persistent over time?



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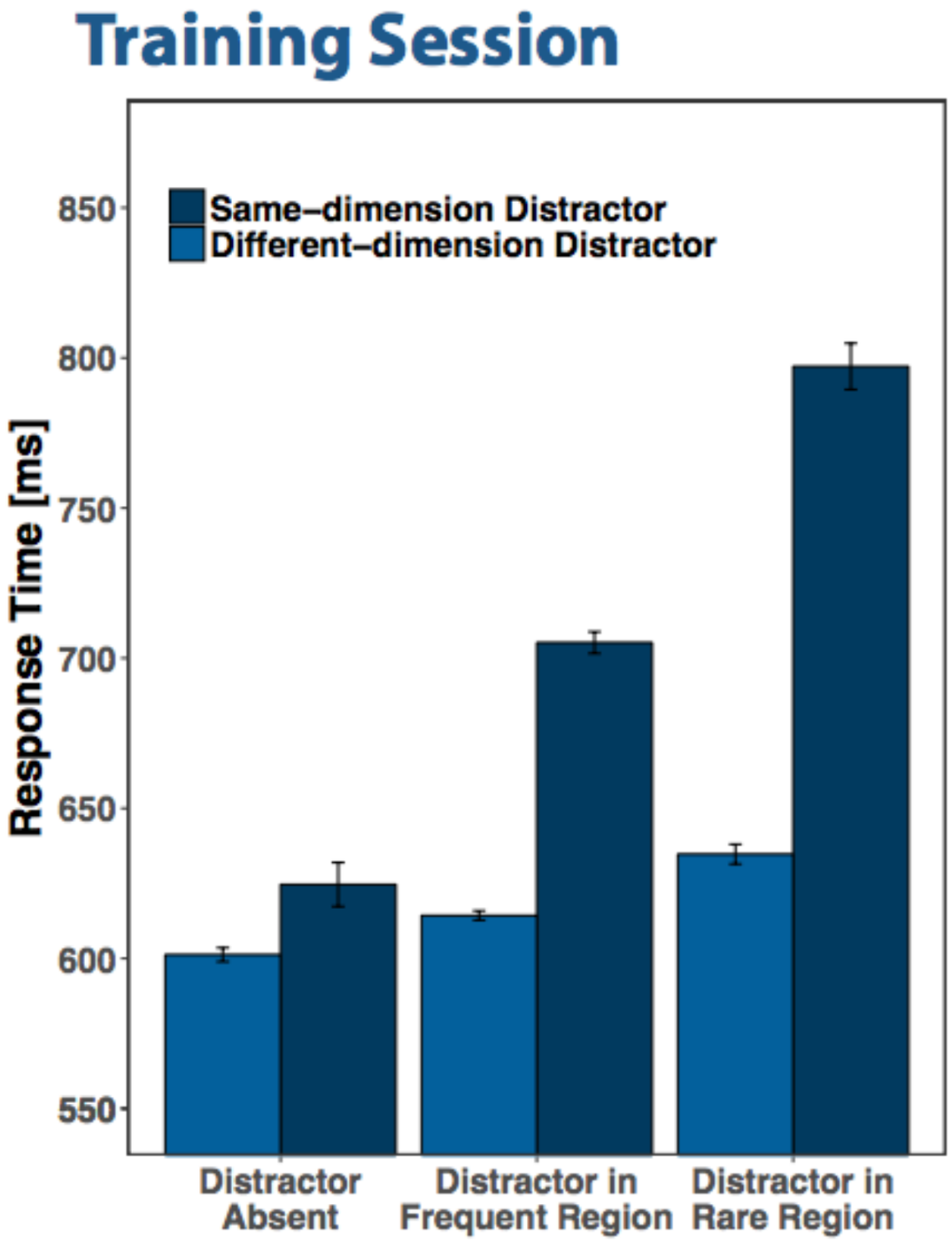

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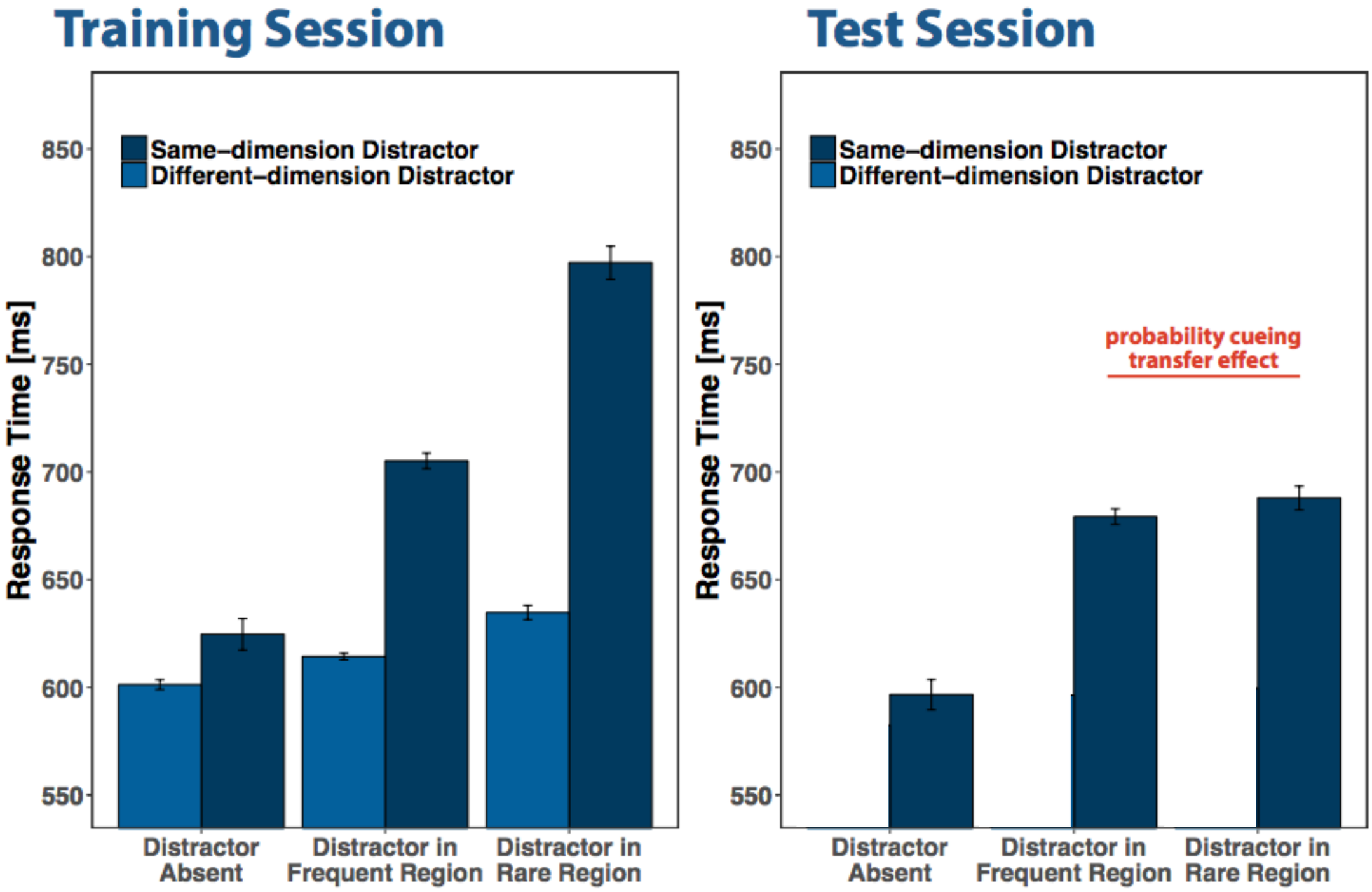

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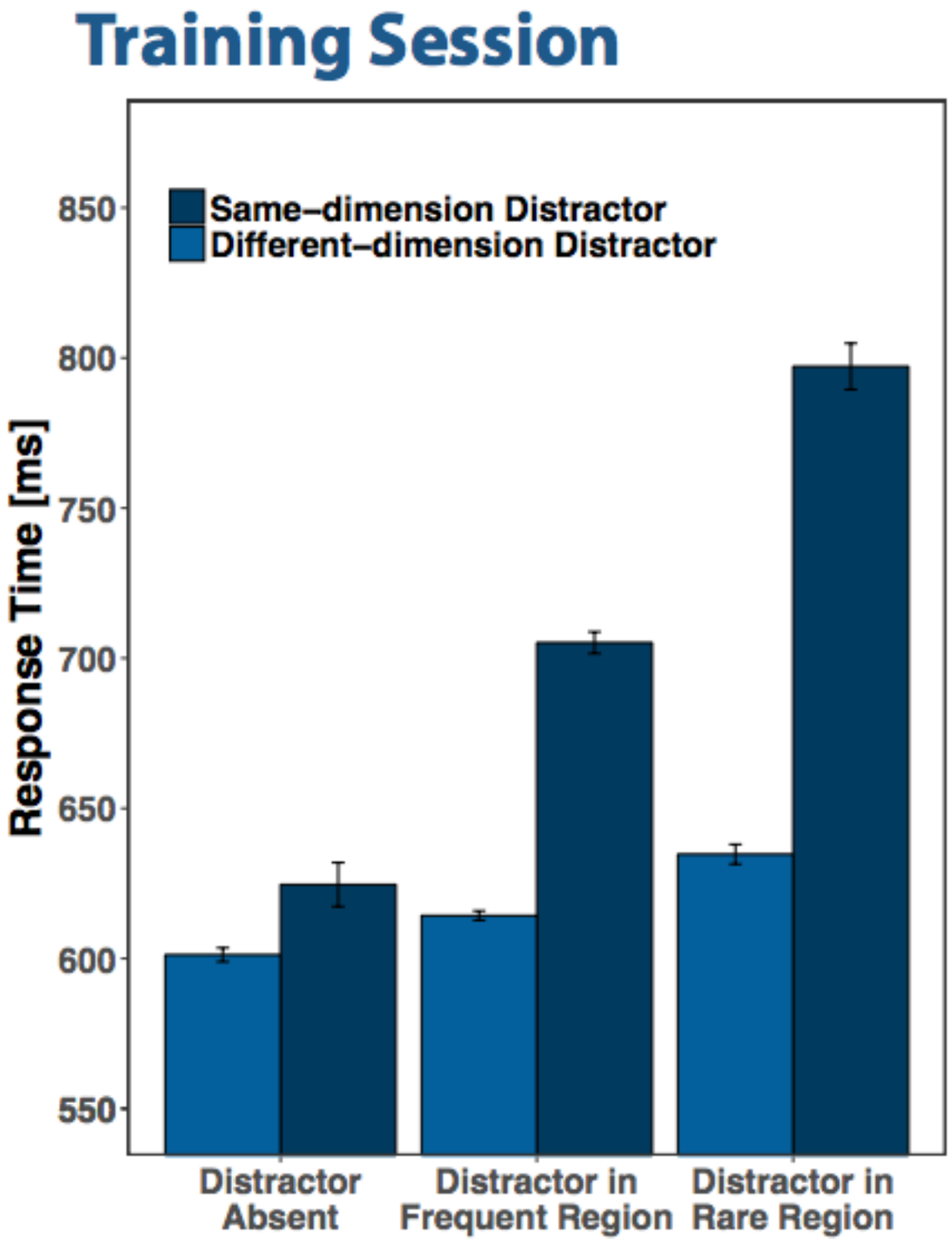

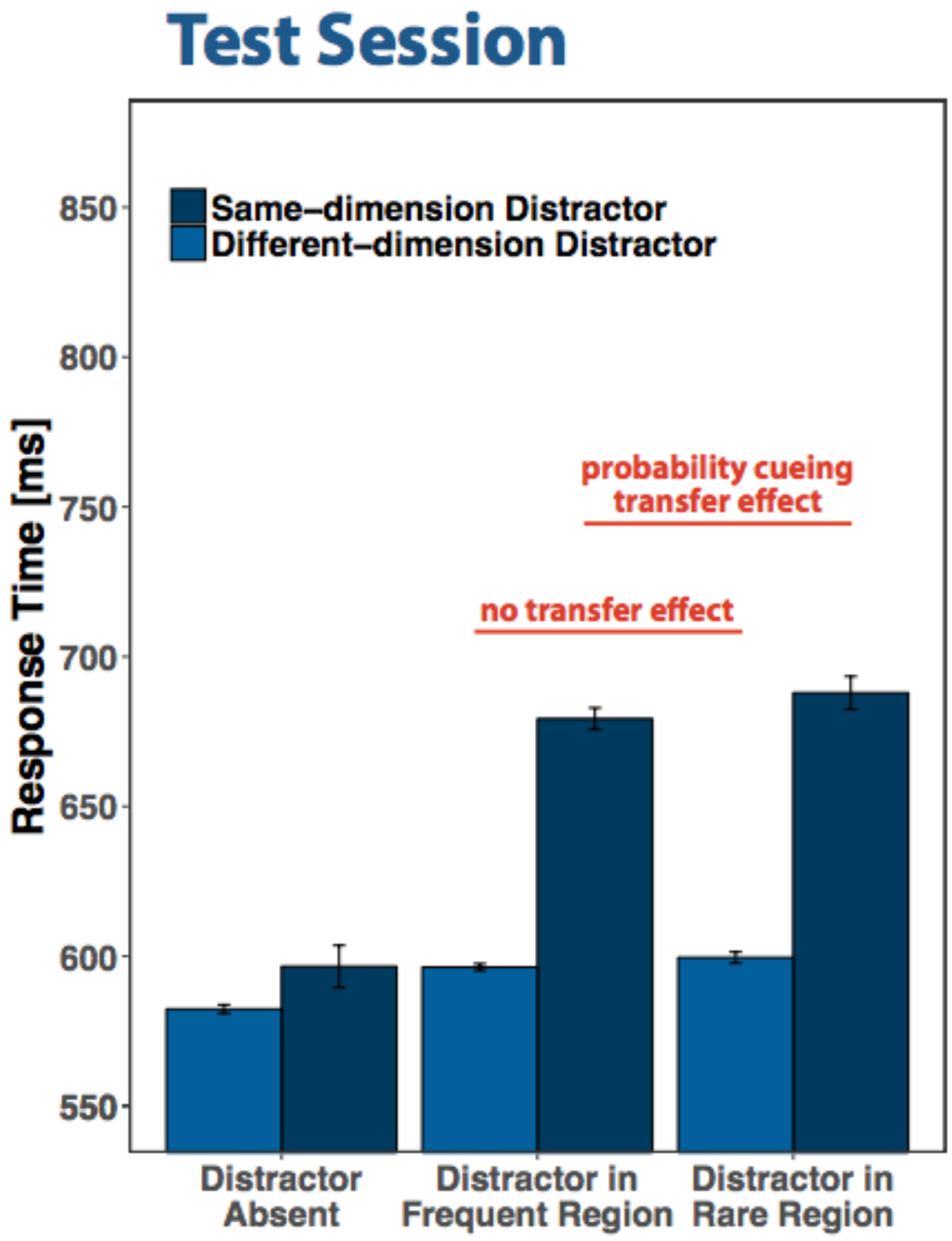

Conclusions

- same-dimension distractors produce a **higher probability cueing effect** than different-dimension distractors

- same-dimension distractors produce interference **even when they are not there**

- same-dimension distractors produce a cueing effect **in balanced displays 24h after training**,

- important implications in design of heads-up displays

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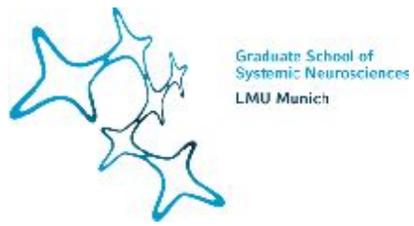
THANKS TO


Hermann Müller

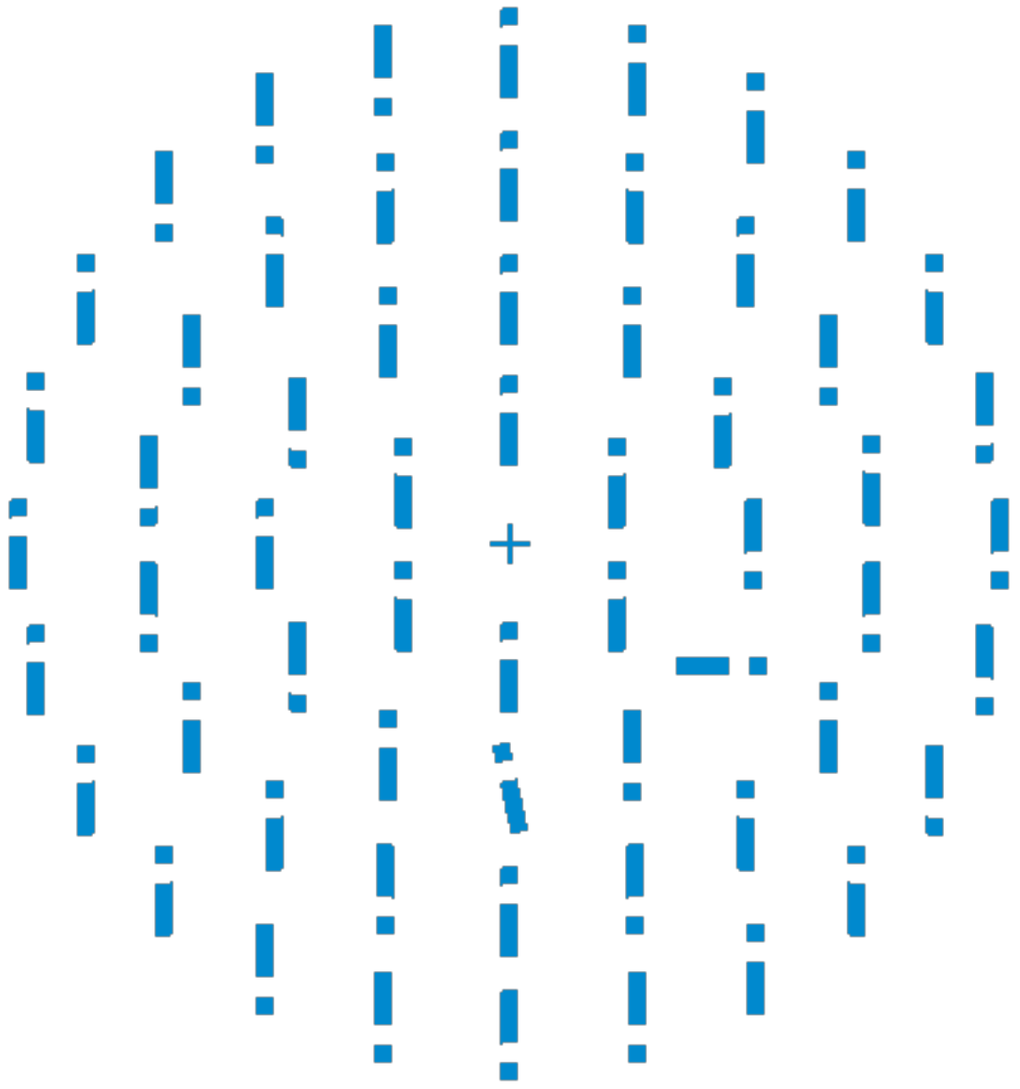
René Liesefeld

as well as
Mallissa Watts
and Pia Schmidt



THANK YOU FOR YOUR ATTENTION

Is the attenuated capture reflected in EEG?



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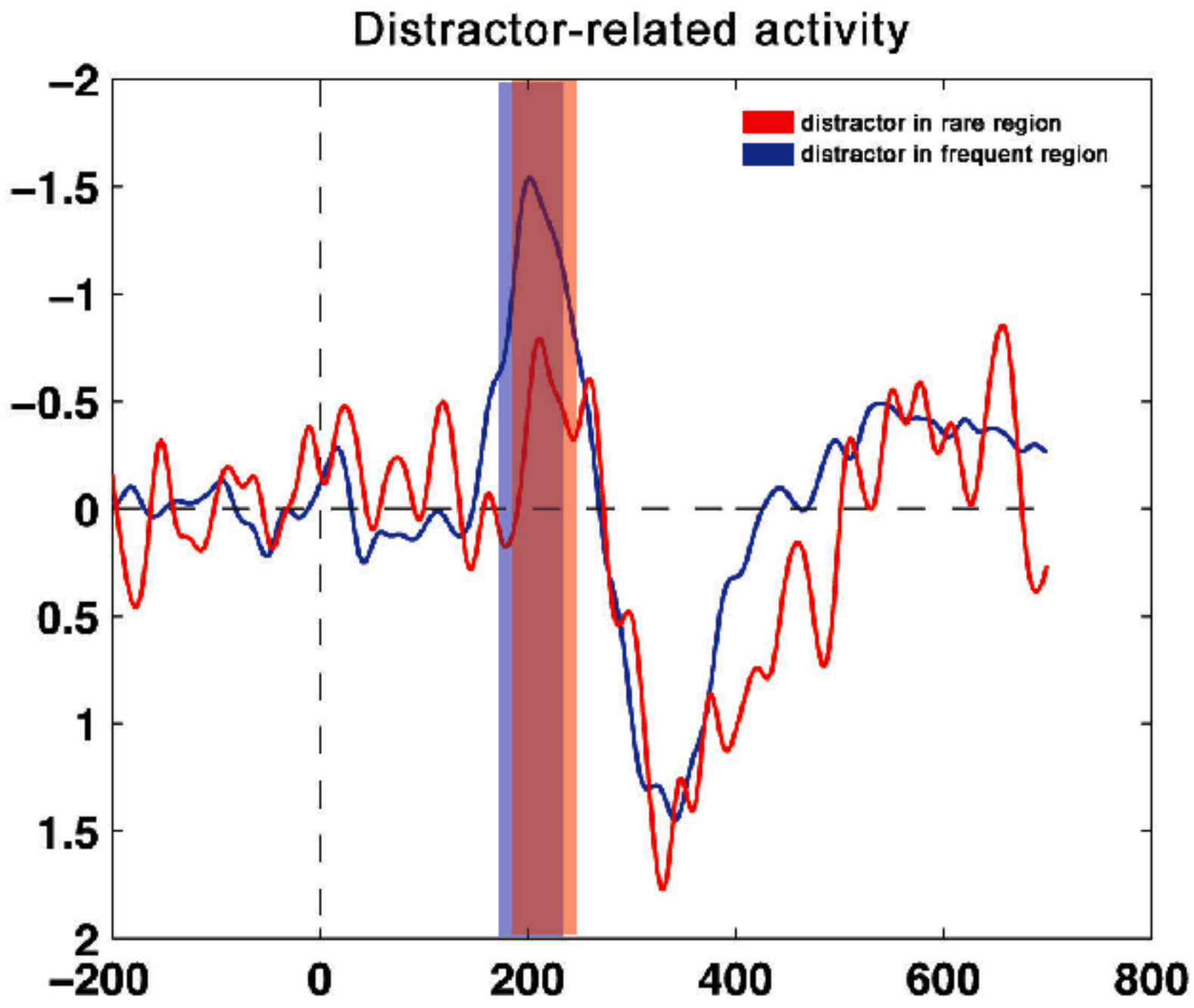

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