

Psychophysics and visual attention

Herrmann K, Montaser-Kouhsari L, Carrasco M & Heeger DJ, When size matters: attention affects performance by contrast or response gain, *Nature Neuroscience*, **13**:1554-1559 (2010).

<http://www.nature.com/neuro/journal/v13/n12/abs/nn.2669.html>

1. What is meant by a response gain change? What is meant by a contrast gain change?
2. What is meant by the attention field and attention field size? Describe how did the authors try to manipulate attention field size.
3. Explain why the authors plotted the psychophysical data using d' instead of percent correct.
4. Describe what was the purpose of the fMRI experiment?
5. Can you devise a further experiment (perhaps using different methods) that would provide a complementary test of the authors' hypothesis?