



Effects of disparity contrast on binocular disparity discrimination with natural stereo-images

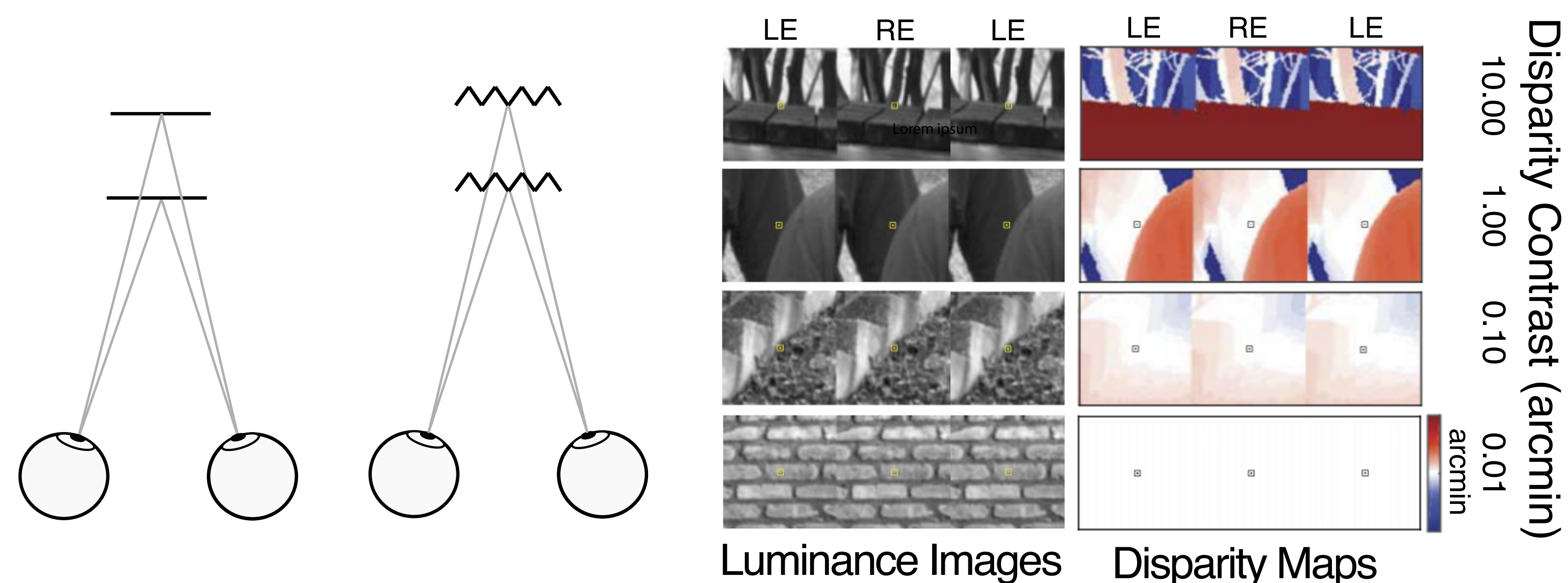


David N. White & Johannes Burge

Departments of Psychology and Neuroscience, University of Pennsylvania

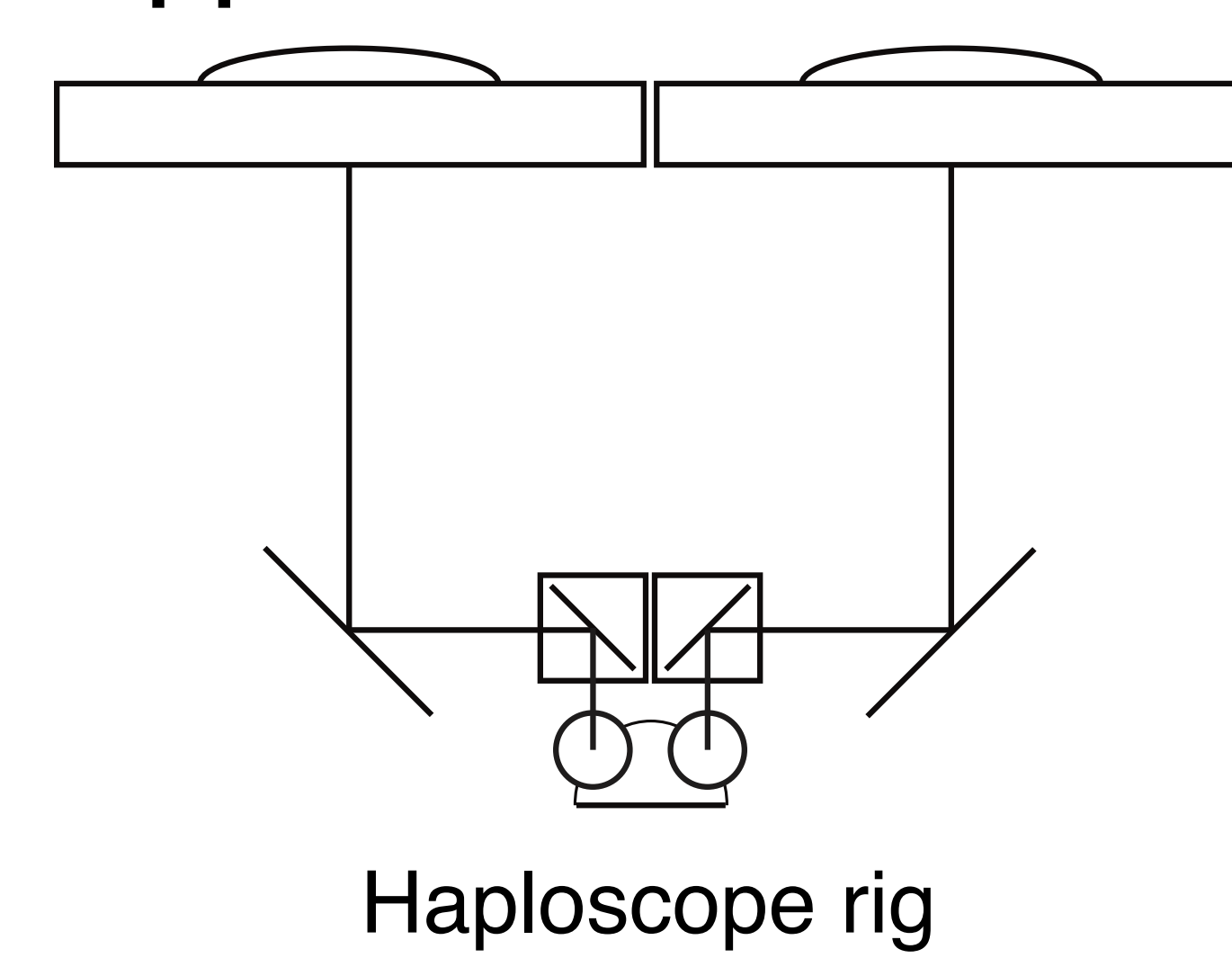
Background

Binocular disparity is an important cue in depth estimation under natural viewing. Natural scenes are marked by local depth variation. How does local depth variation impact stereo-depth discrimination in natural scenes? Disparity contrast quantifies local depth variation.

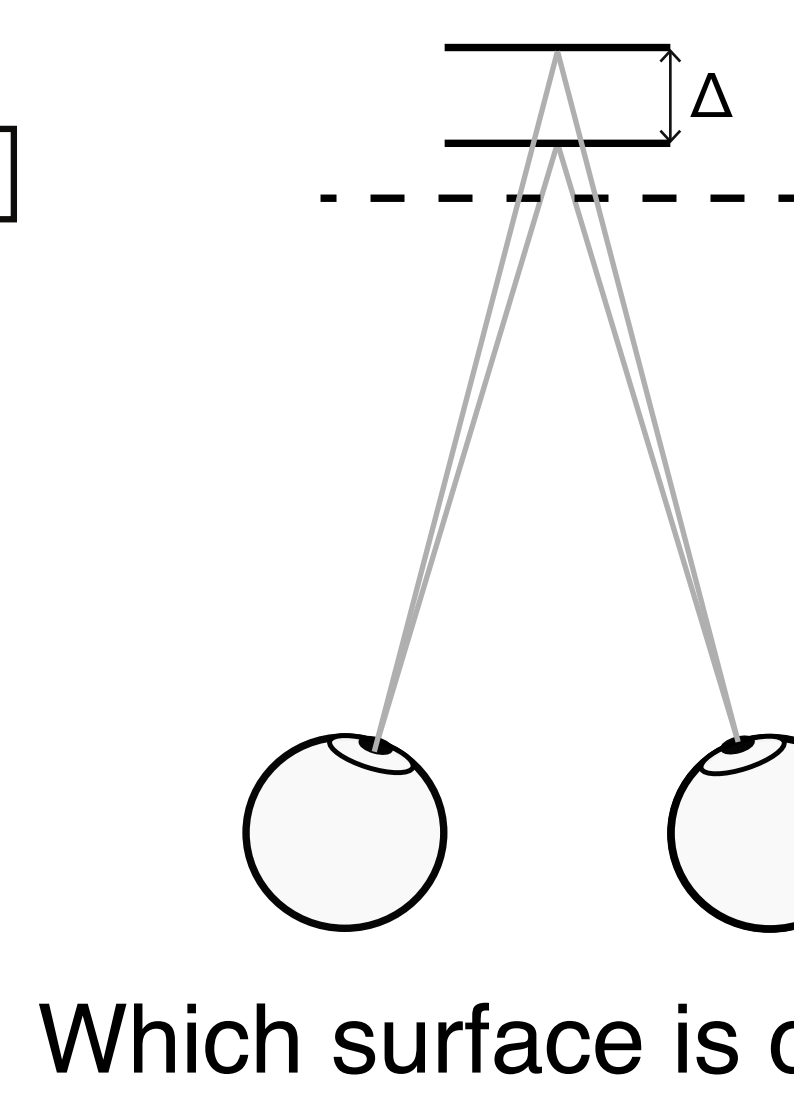


Methods

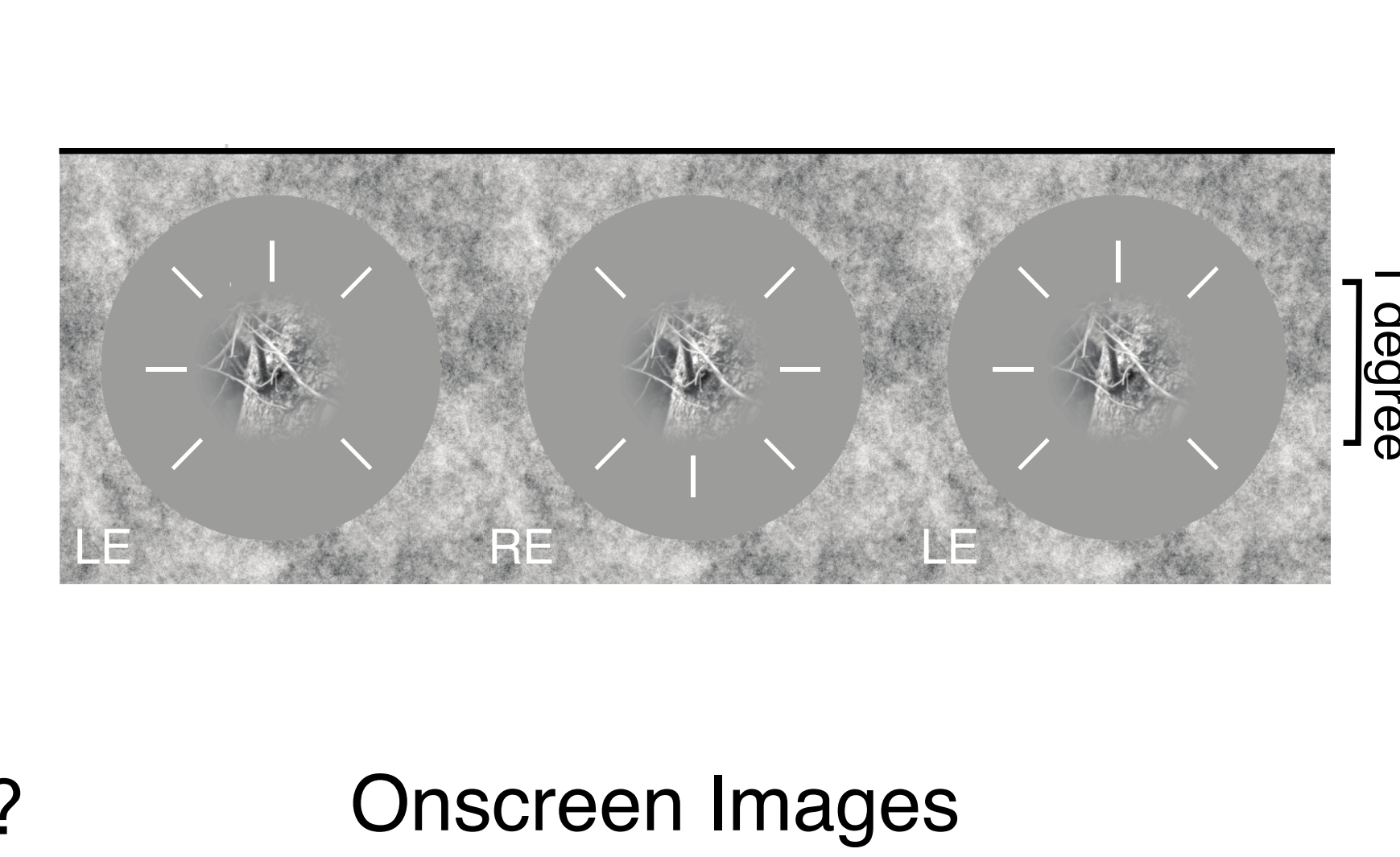
Apparatus



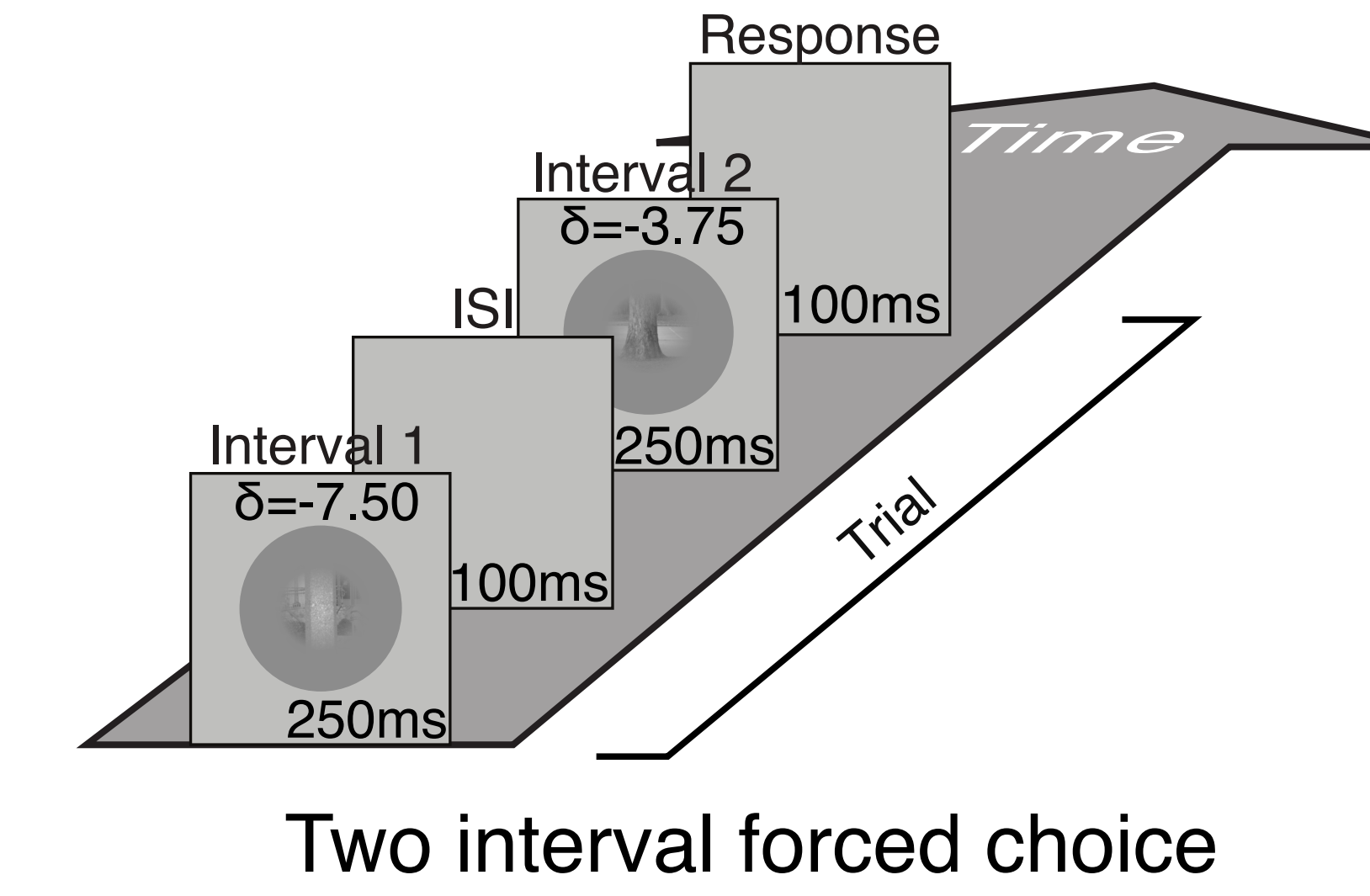
Task



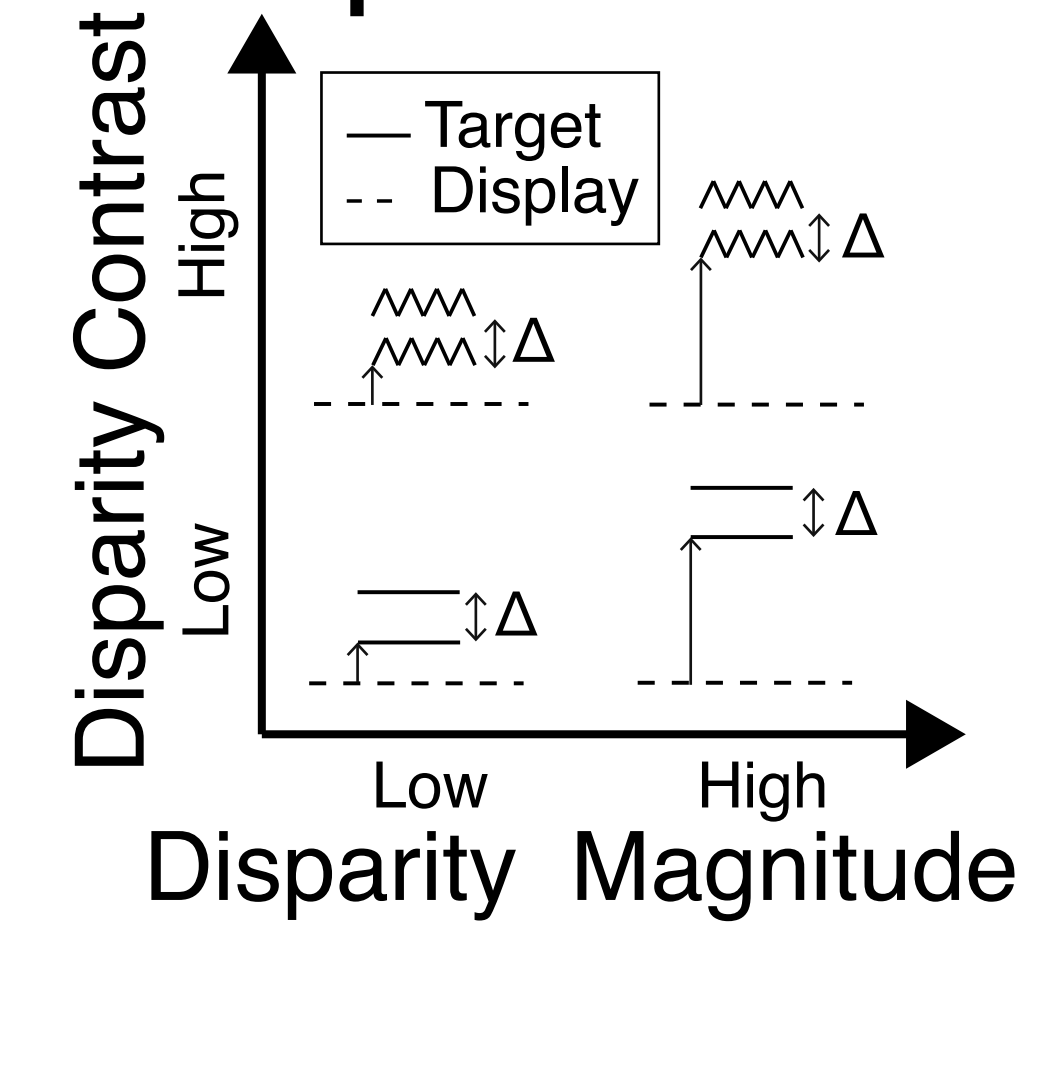
Stimuli



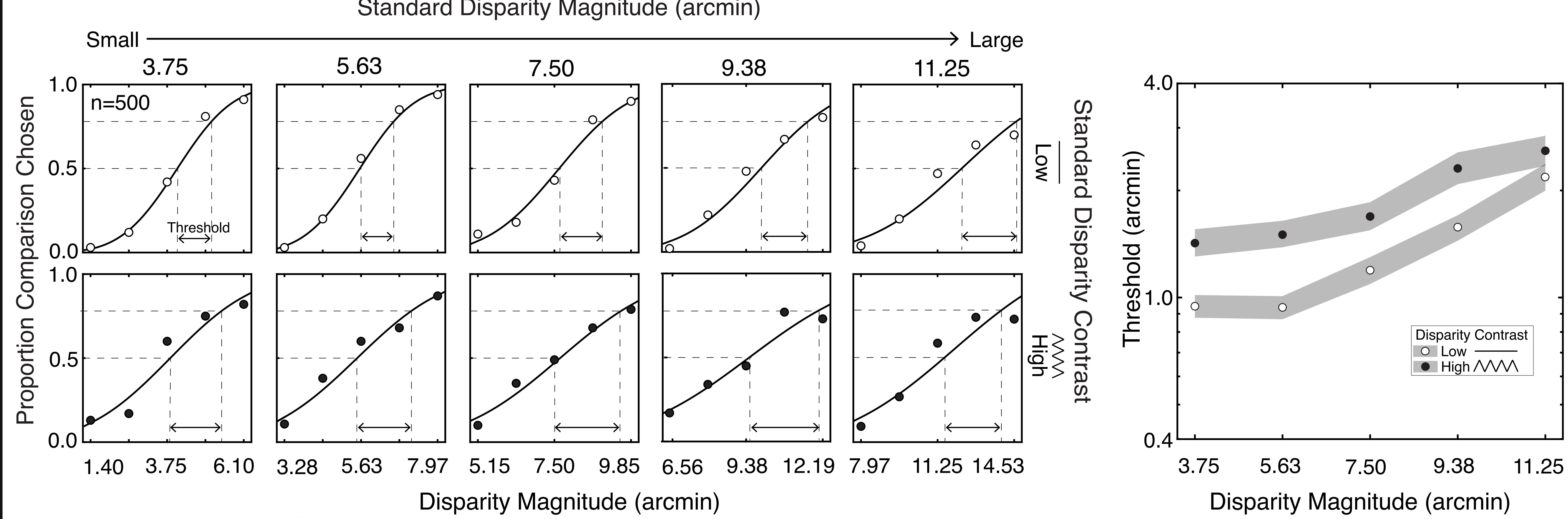
Procedure



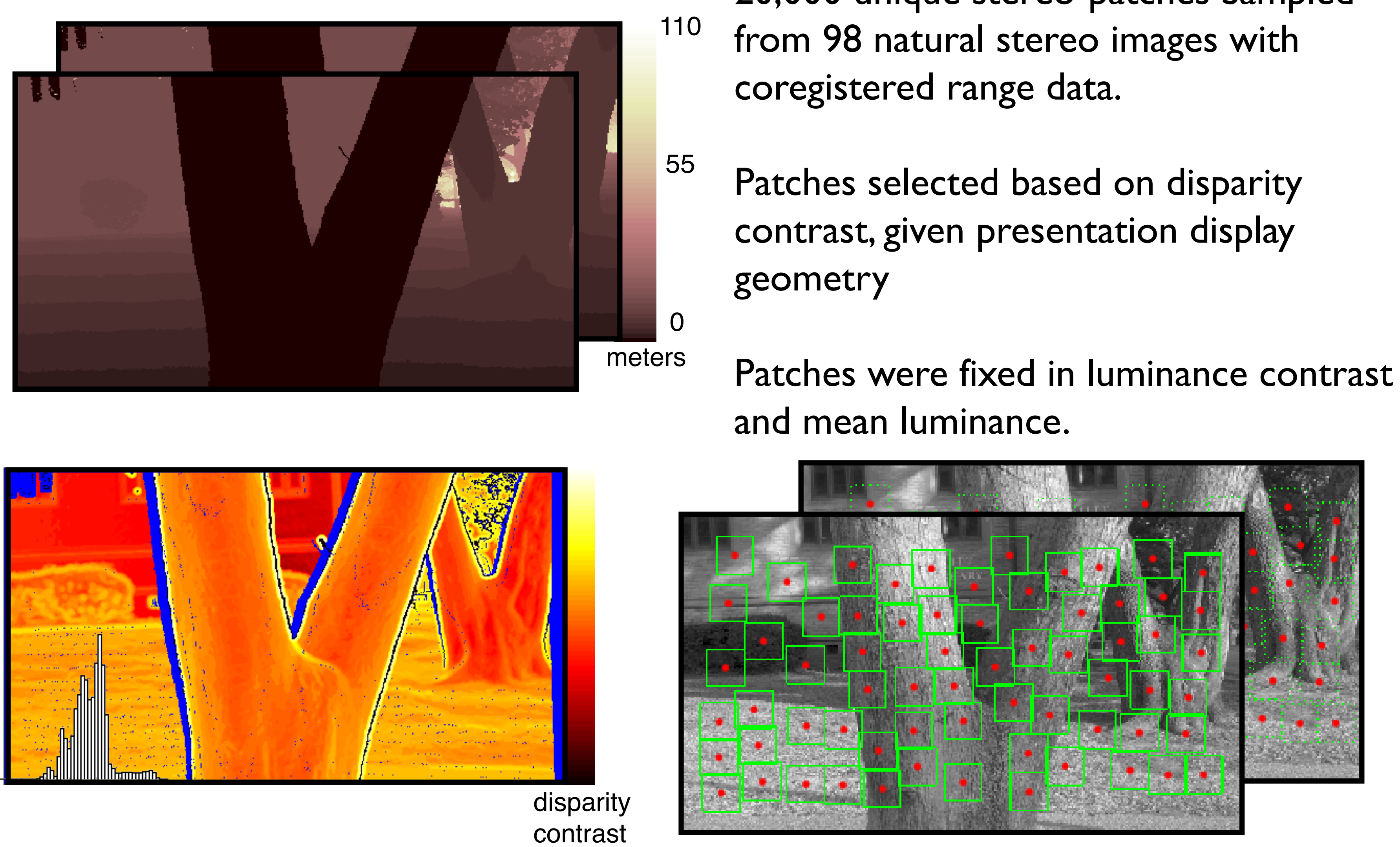
Indep. Variables



Results



Stimulus Generation



Conclusion

Local, naturalistic depth variation negatively impacts stereo-depth discrimination. Thresholds are consistent with previous work which investigated how depth discrimination of flat, natural images is affected by disparity magnitude. We are currently investigating a wider range of disparity contrasts.