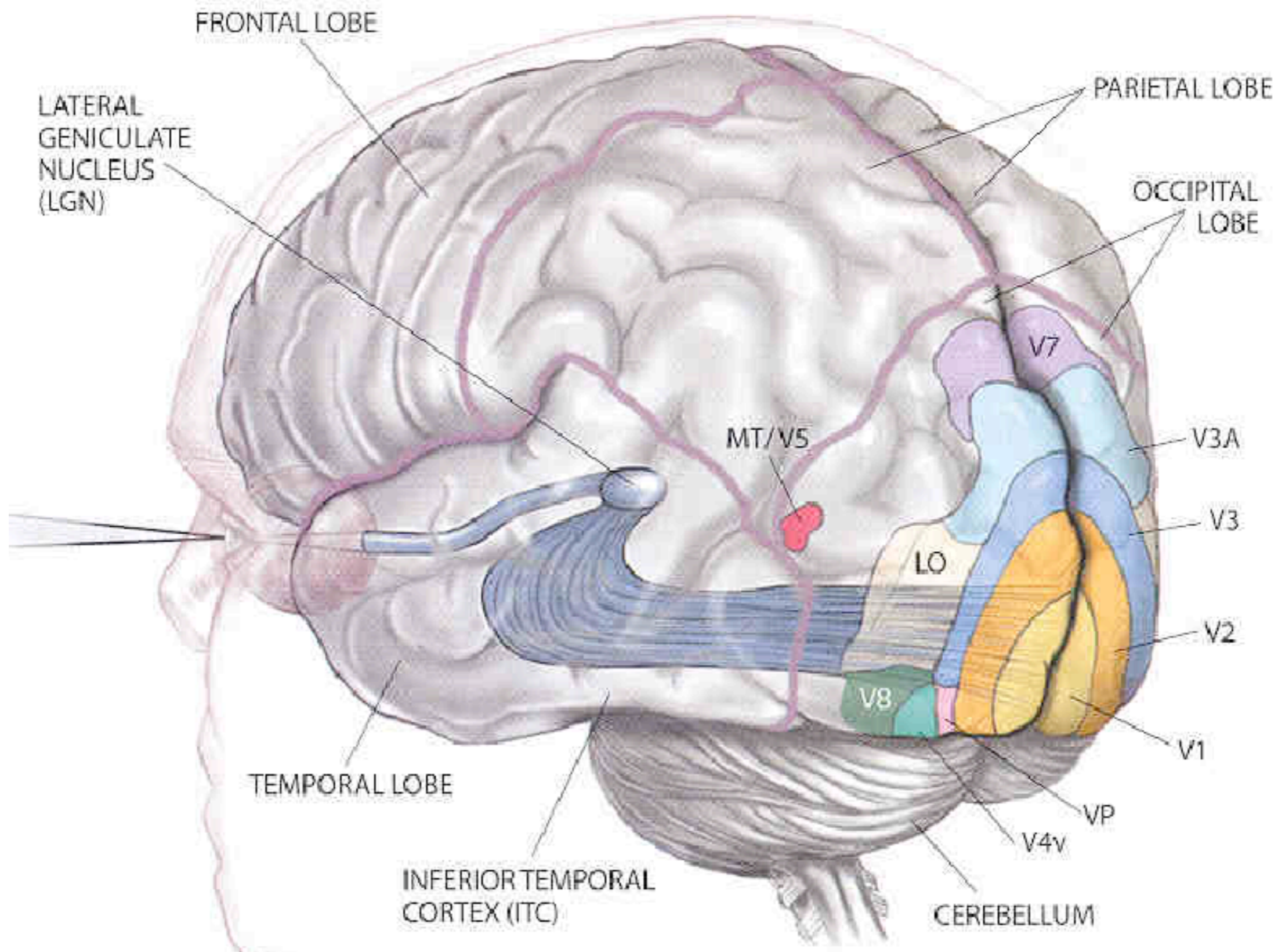
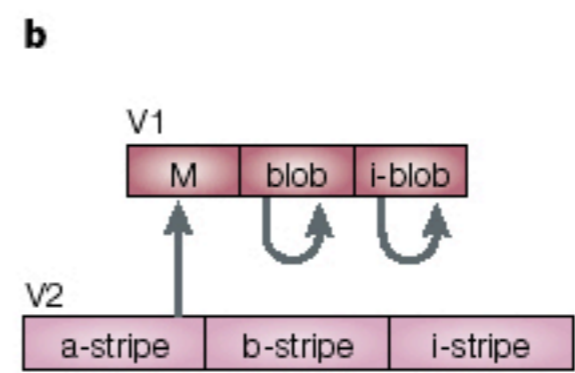
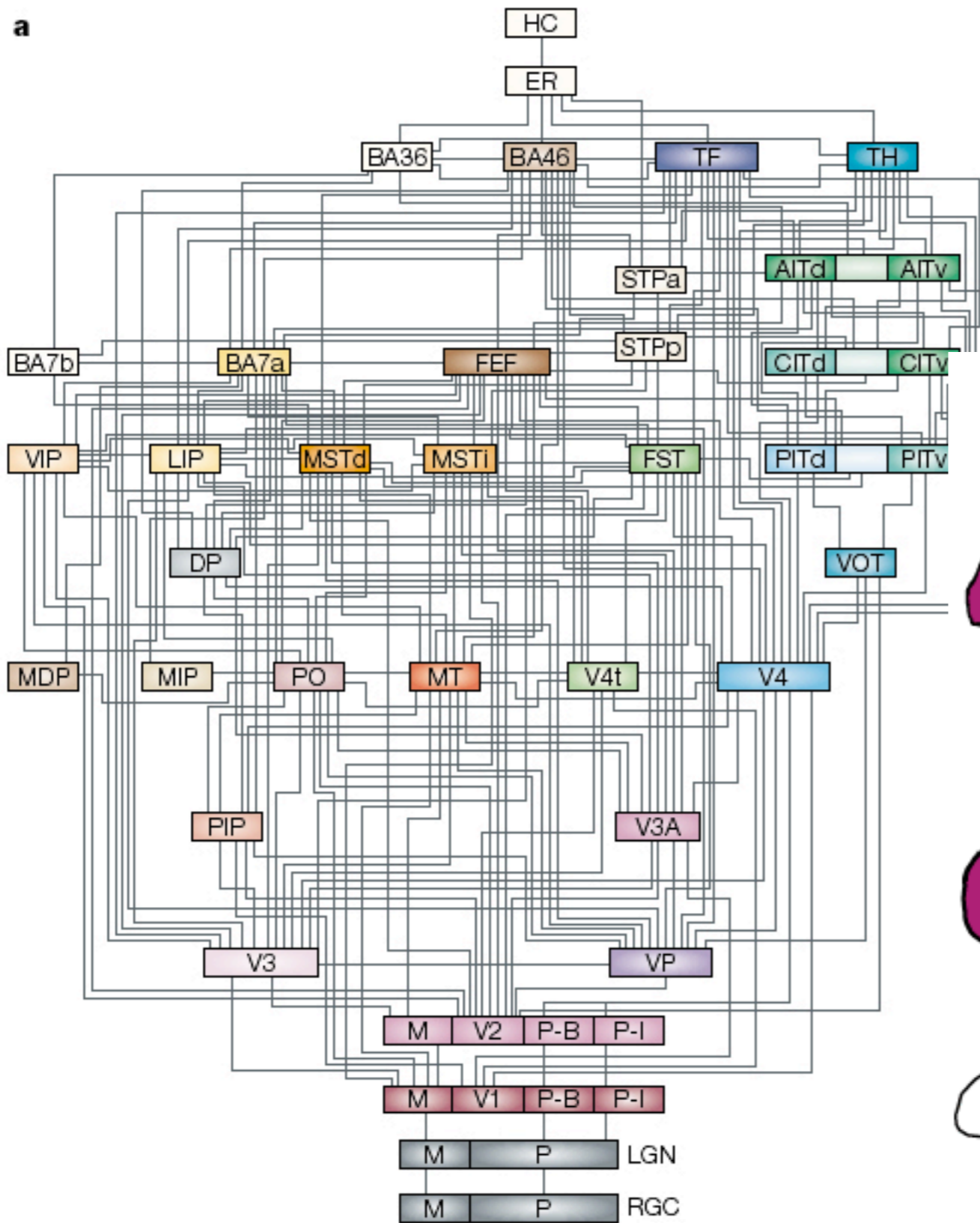


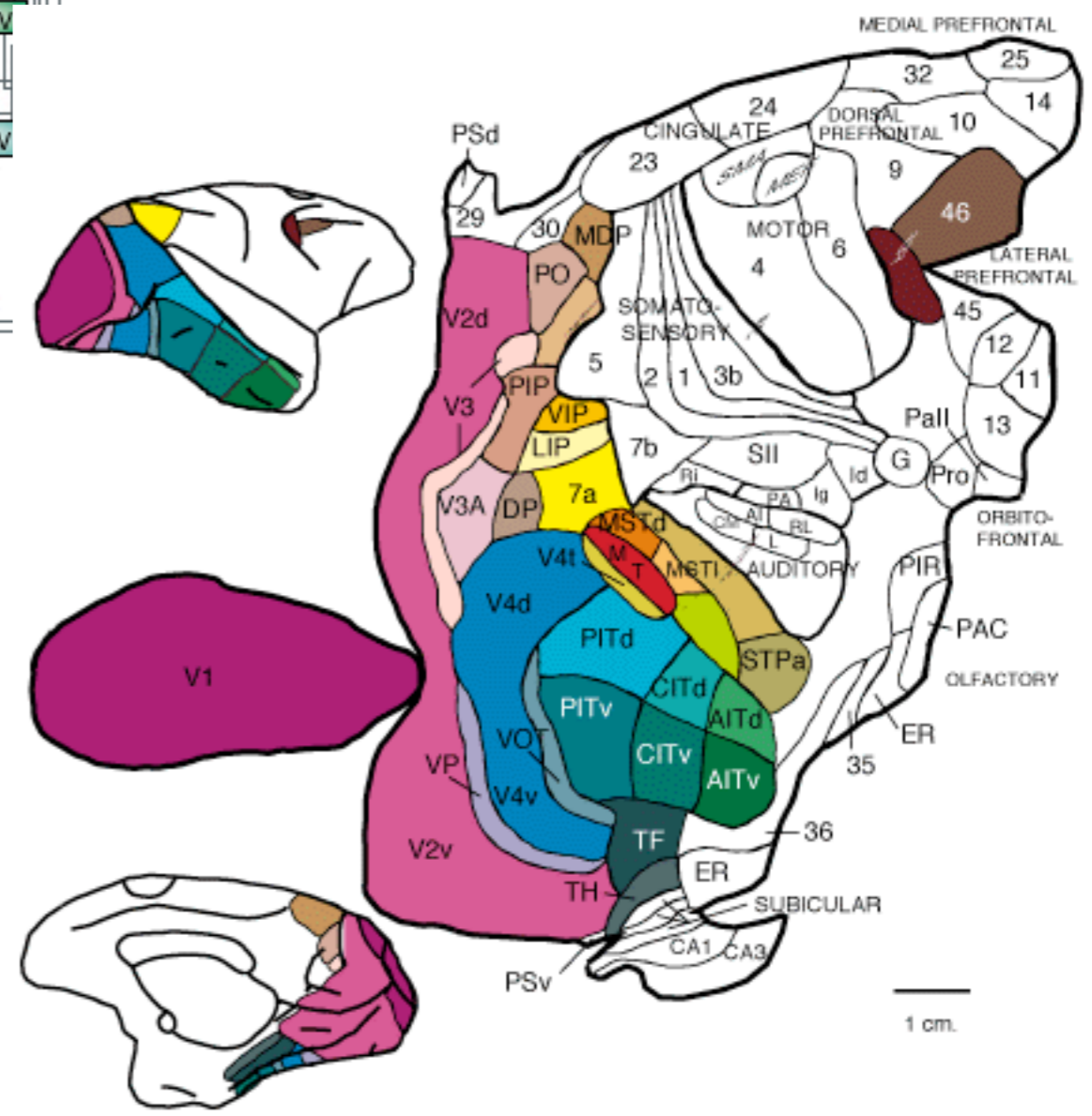
Lightness and V I

VI

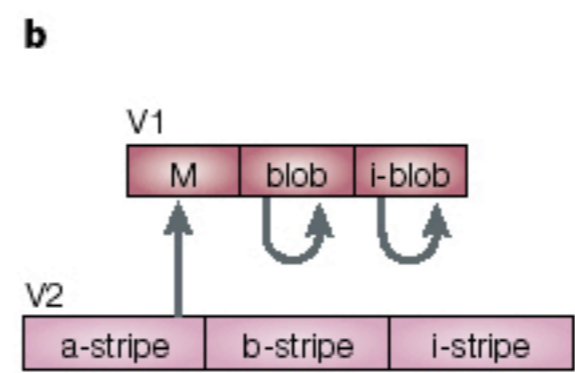
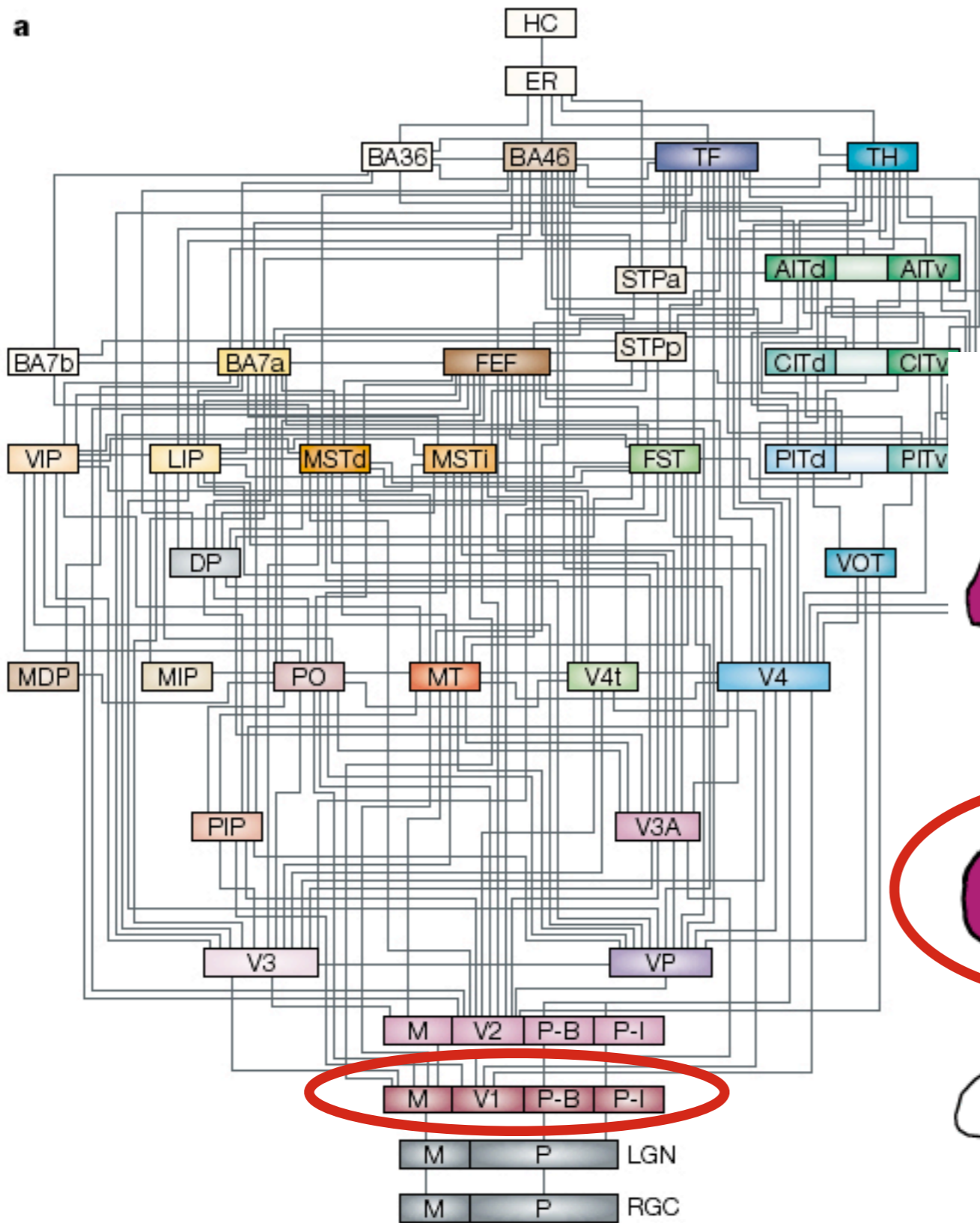




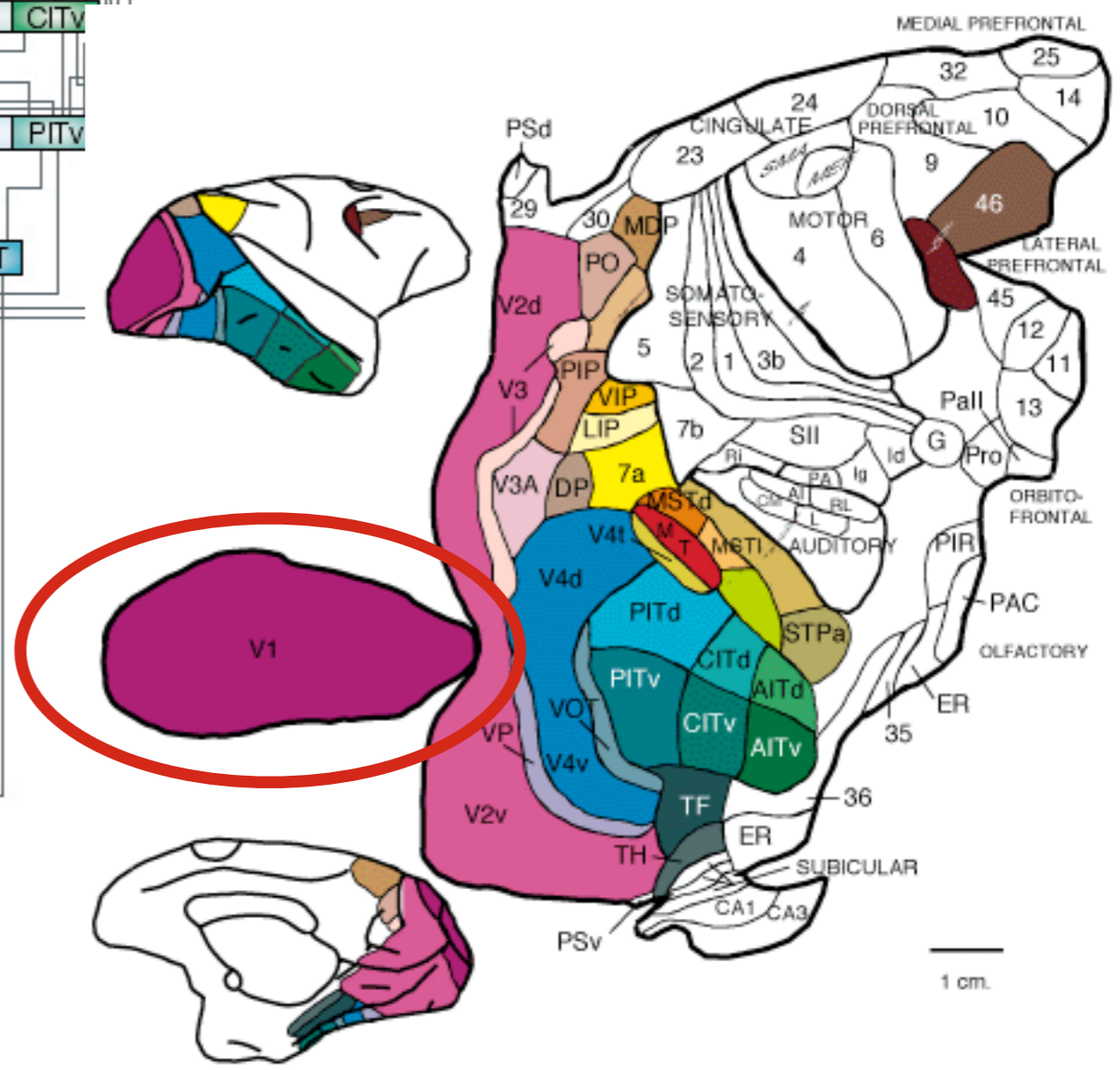
Monkey
VI



Felleman & Van Essen, 1991

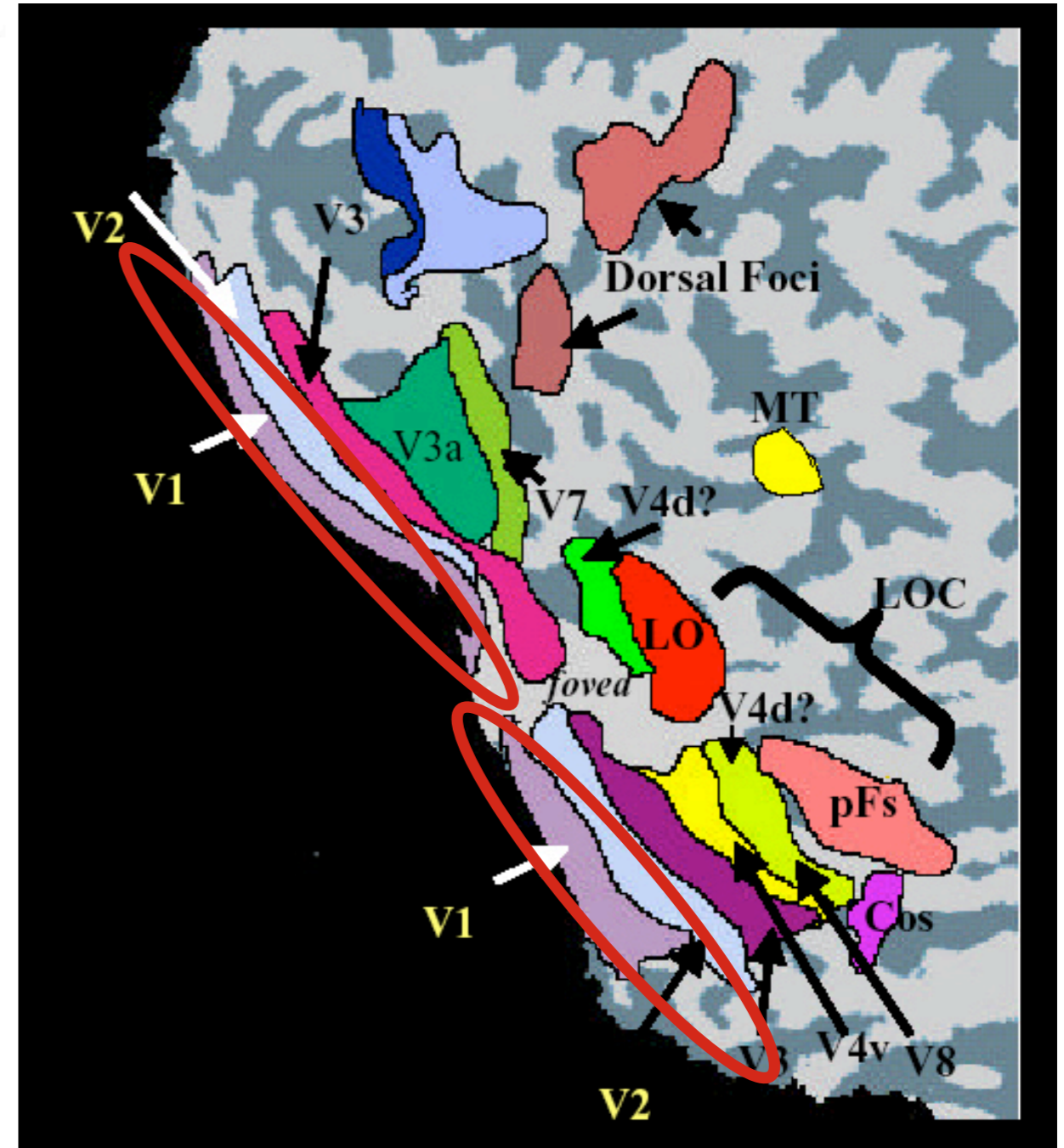
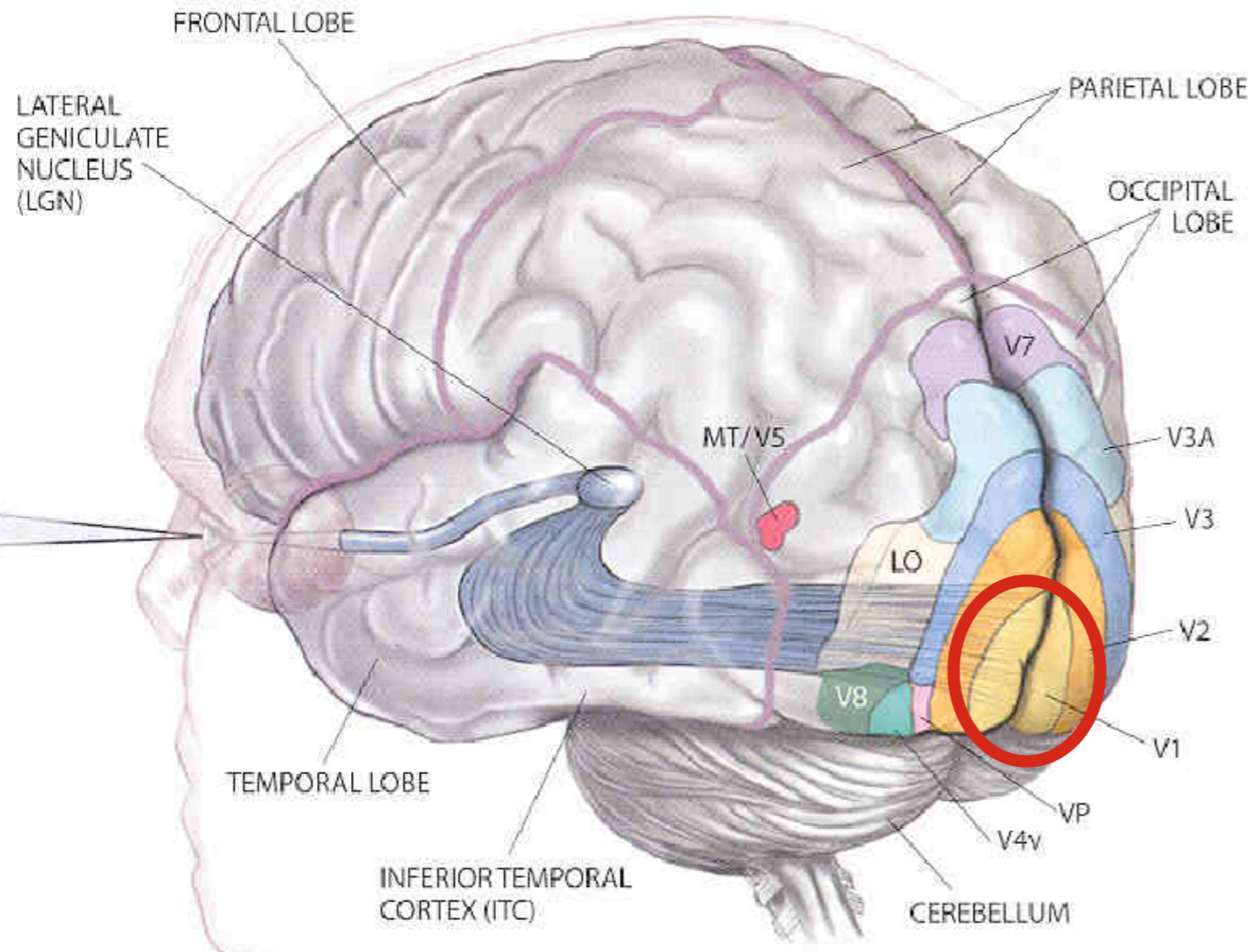


Monkey VI



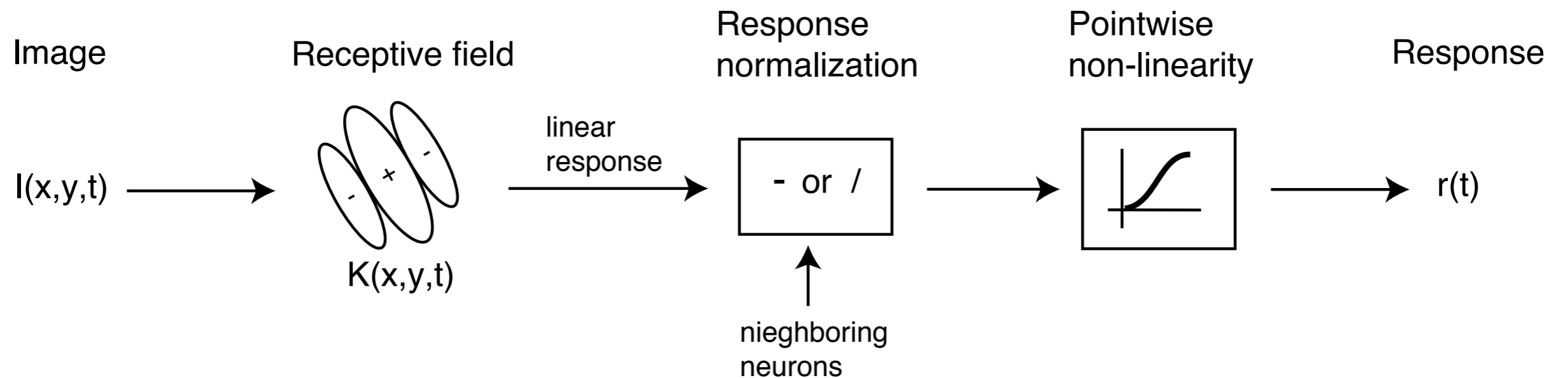
Felleman & Van Essen, 1991

Human V1

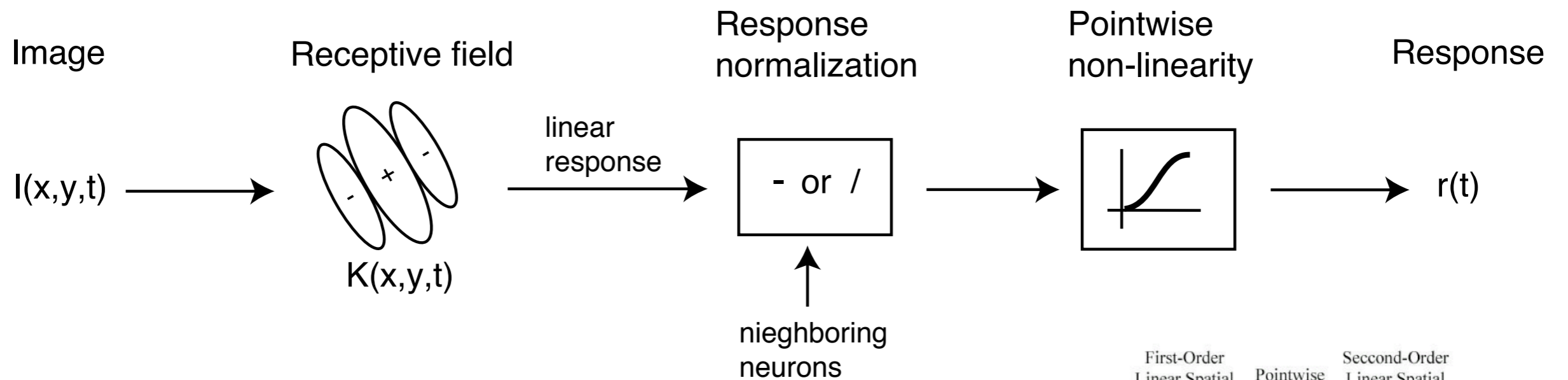


Grill-Spector, K., Kourtzi, Z., & Kanwisher, N. (2001). Vision Res, 41(10-11), 1409-1422.

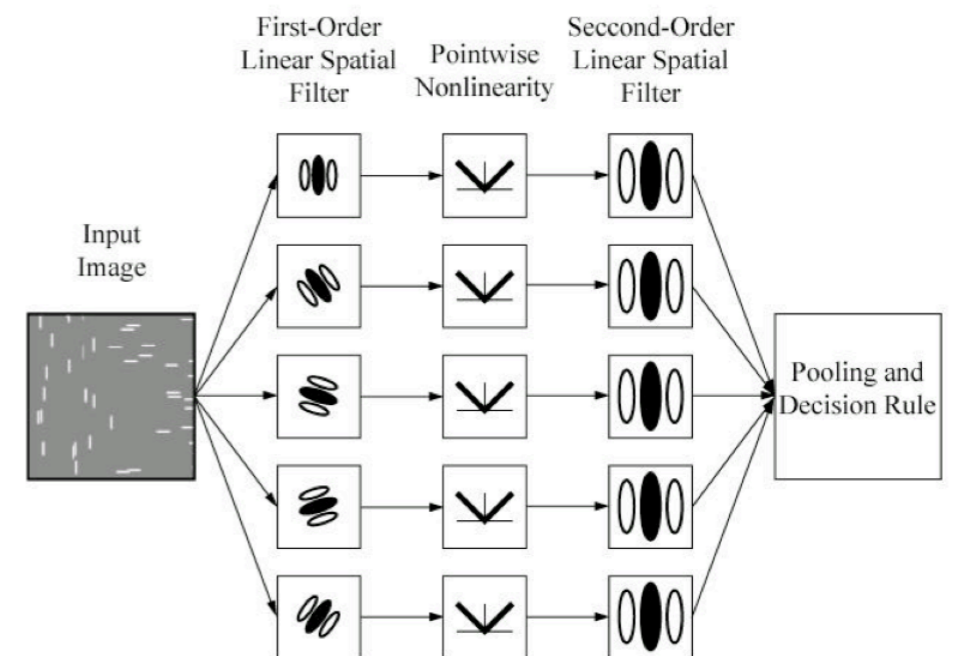
Local filters: Spatial receptive fields



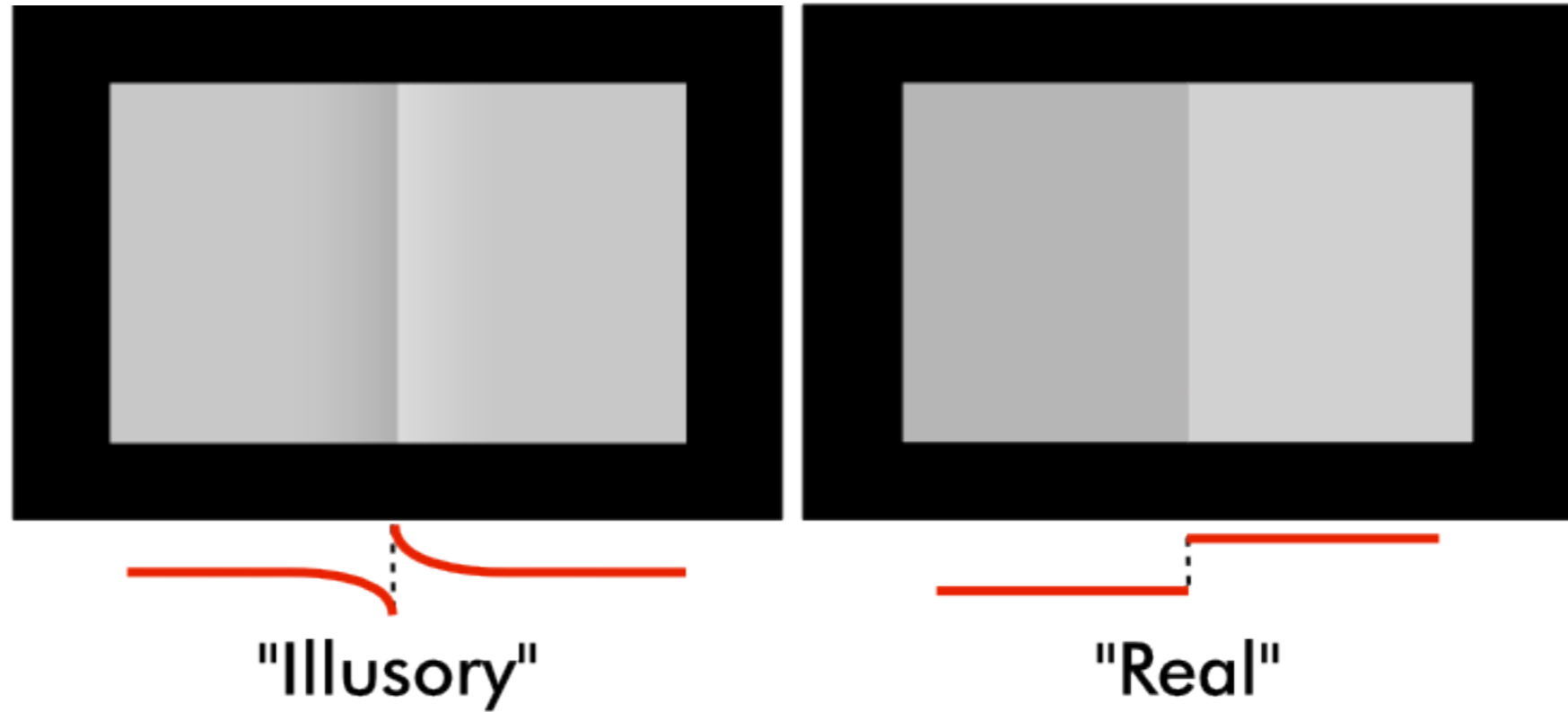
Local filters: Spatial receptive fields



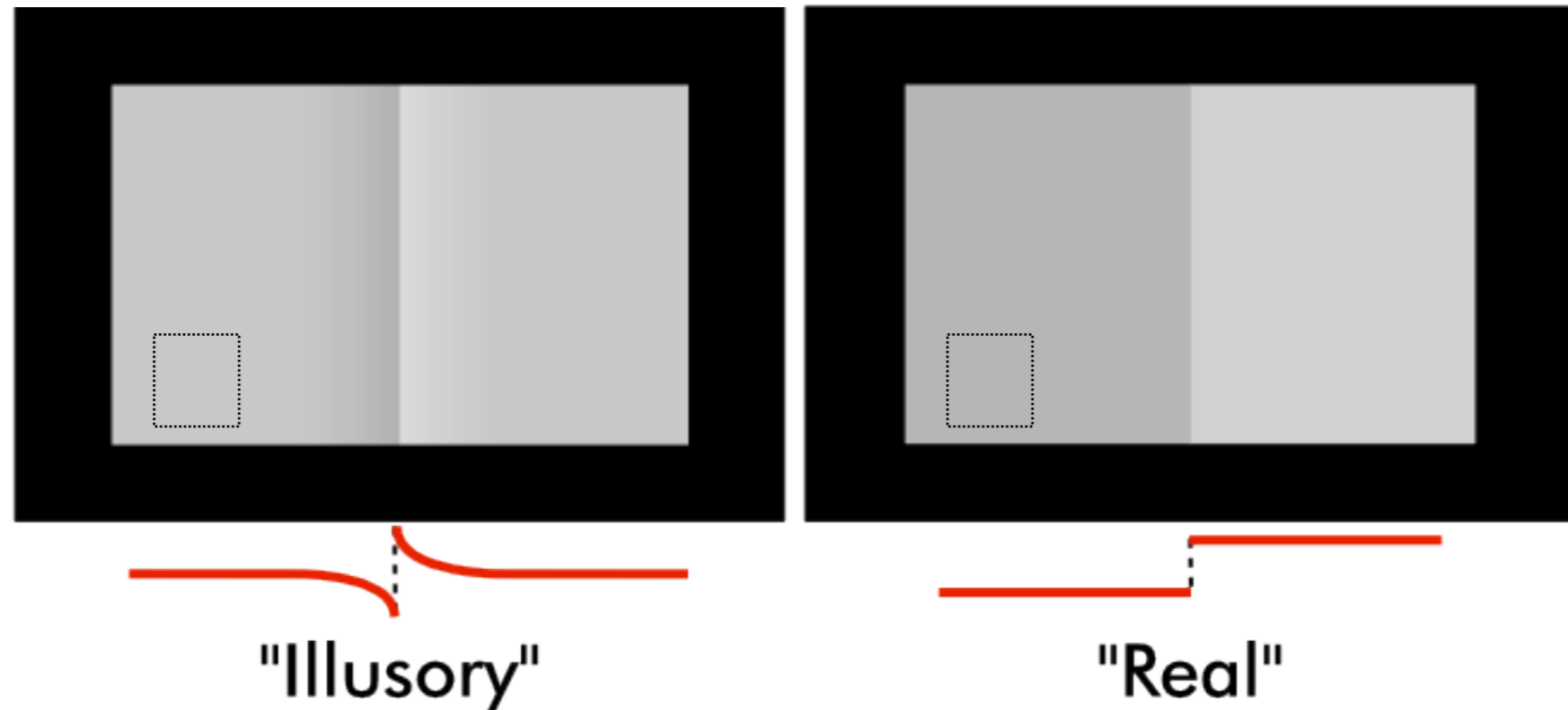
Applications: “back pocket models” for texture segmentation (Chubb & Landy; Landy & Graham)



Craik-O'Brien effect



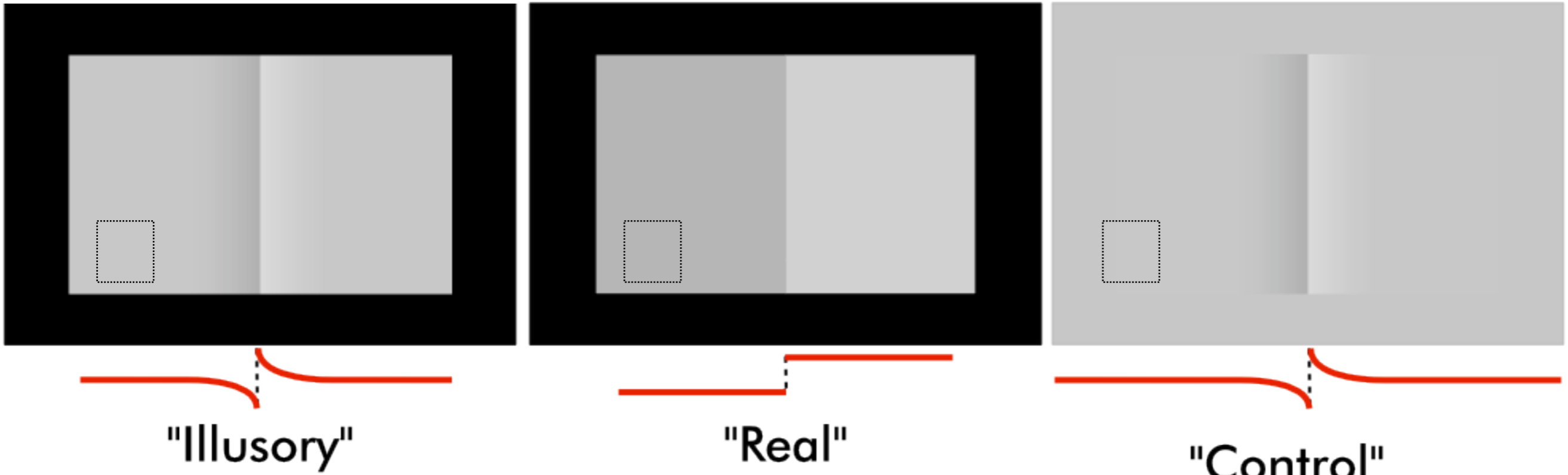
Craik-O'Brien effect



Based on what what you've learned about the spatial filtering properties of V1 cells, i.e. their receptive fields, what would you predict cortical responses to be in the boxes?

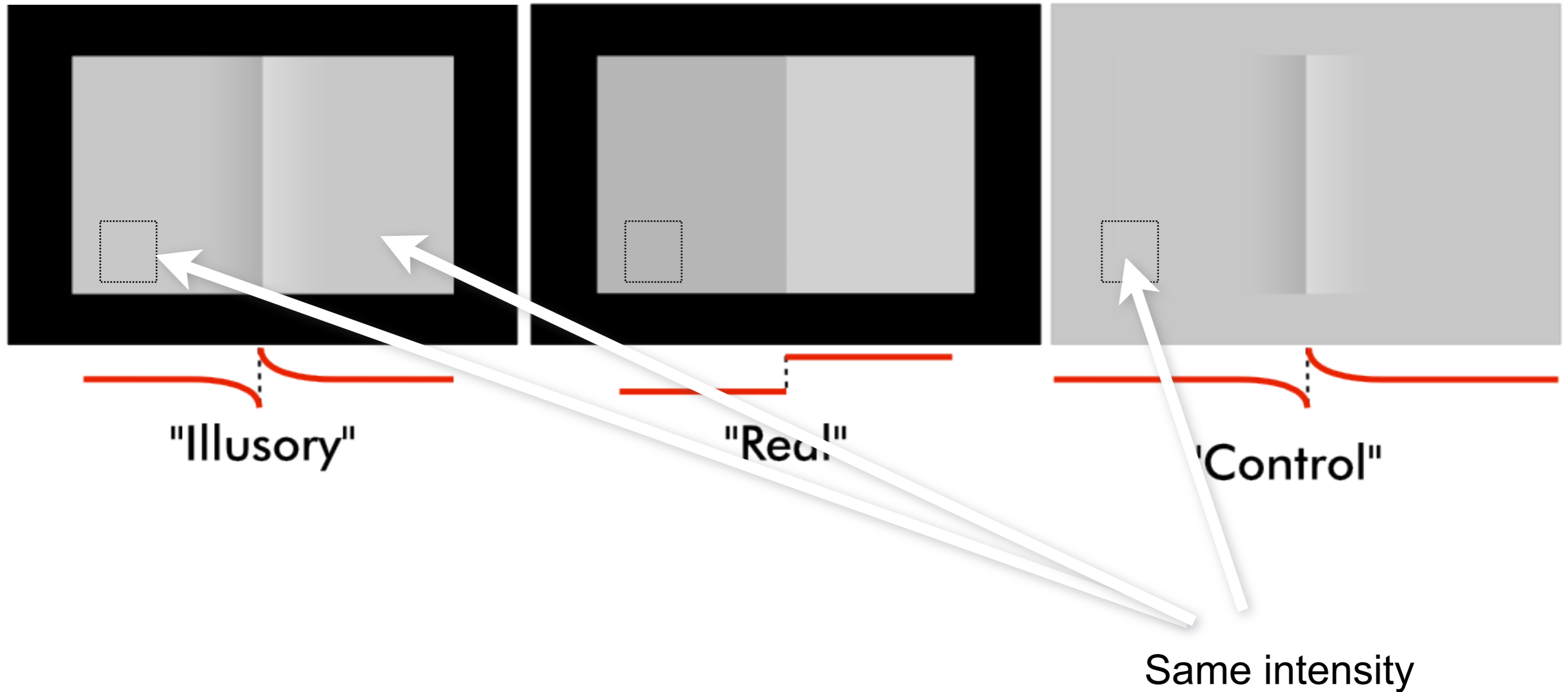


Craik-O'Brien effect



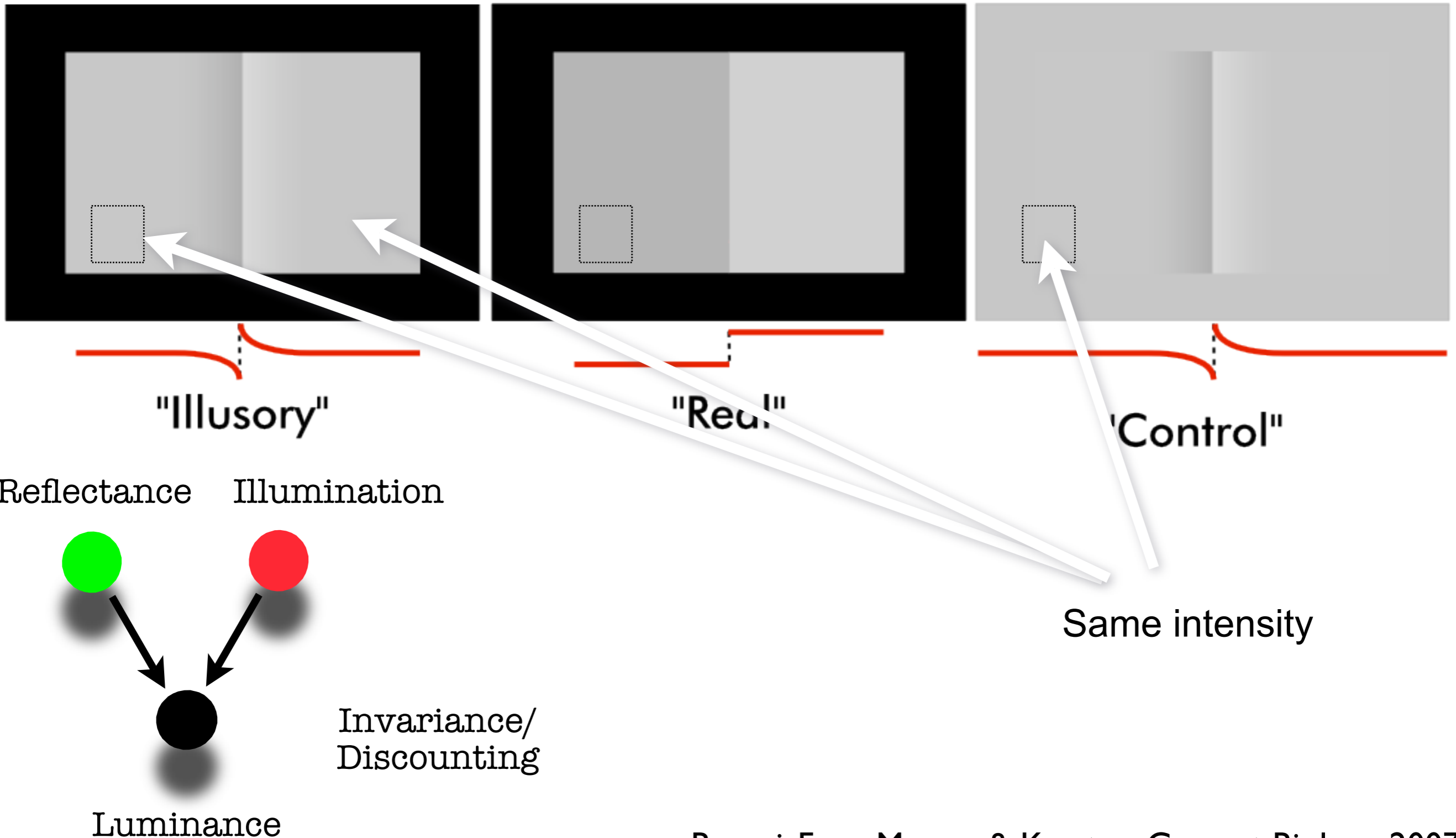


Craik-O'Brien effect



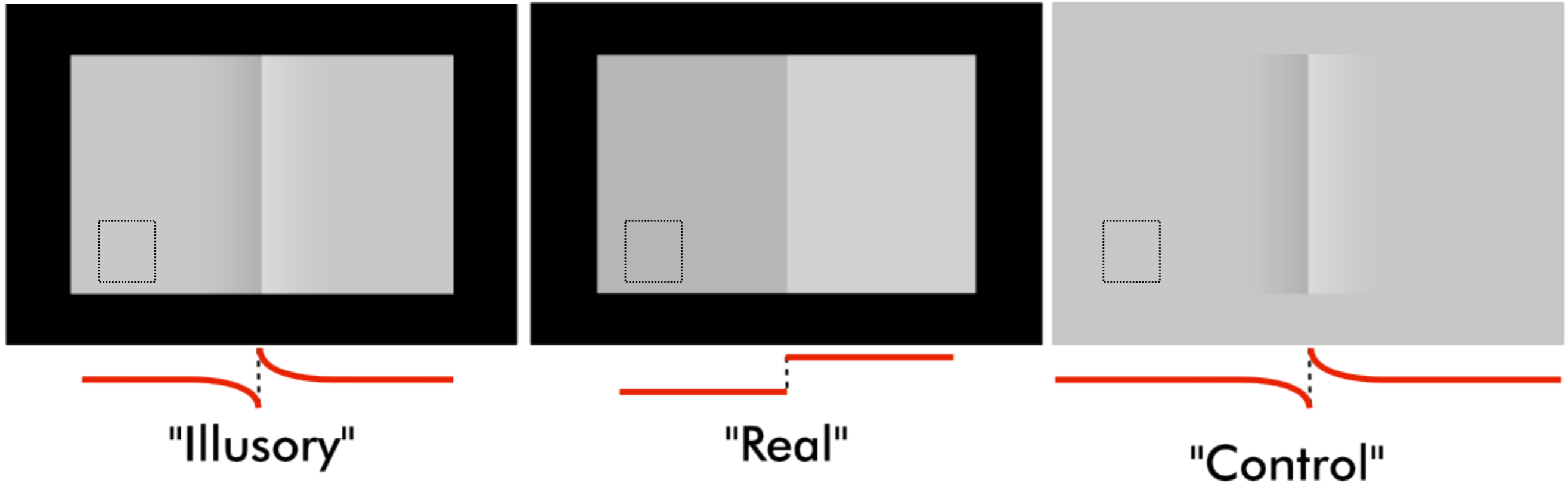


Craik-O'Brien effect

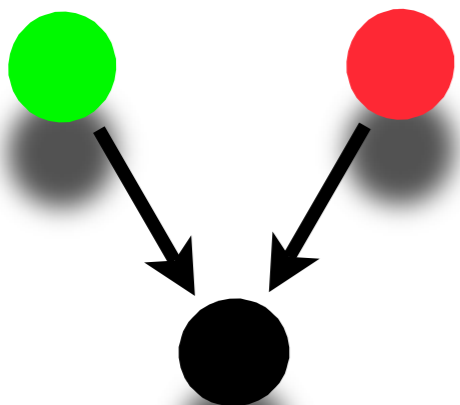




Craik-O'Brien effect



Reflectance Illumination

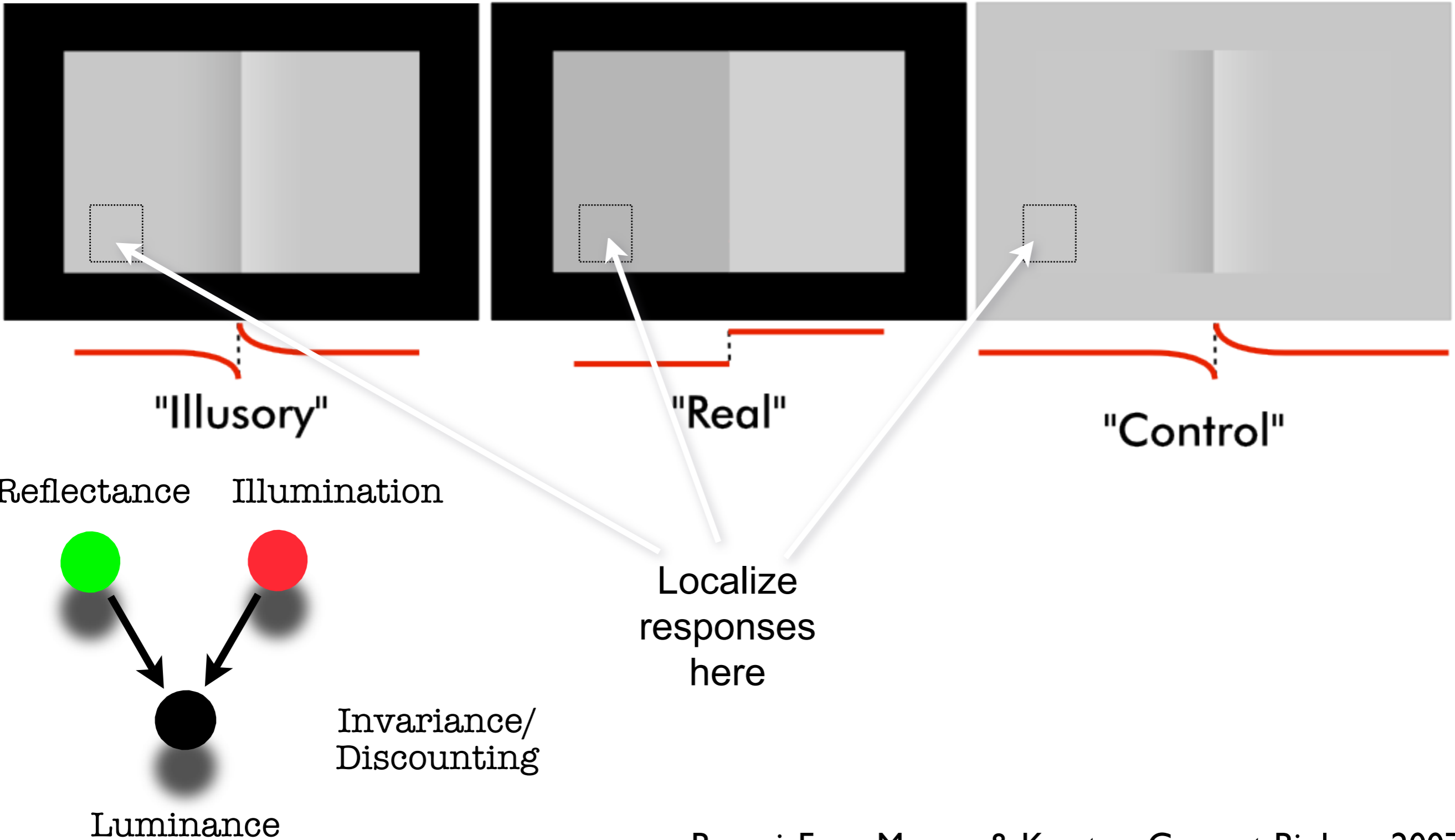


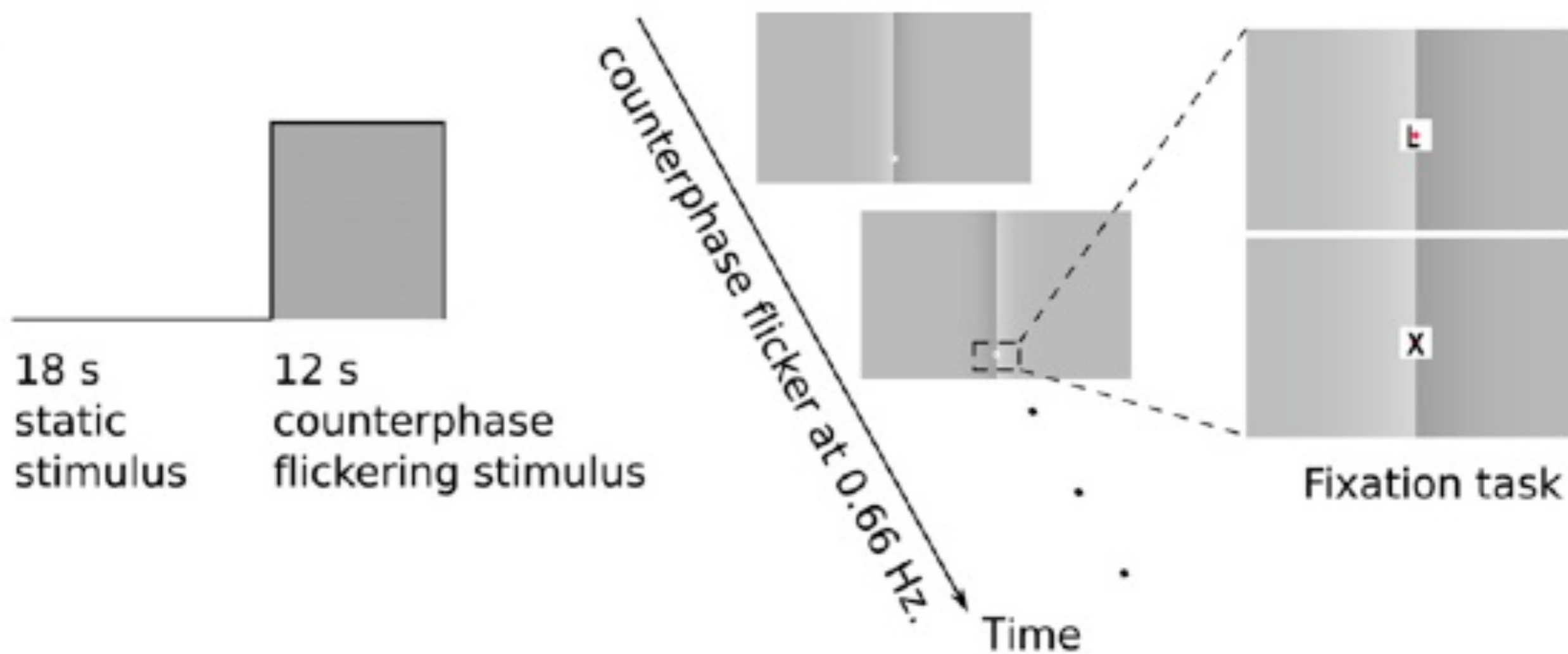
Invariance/
Discounting

Luminance

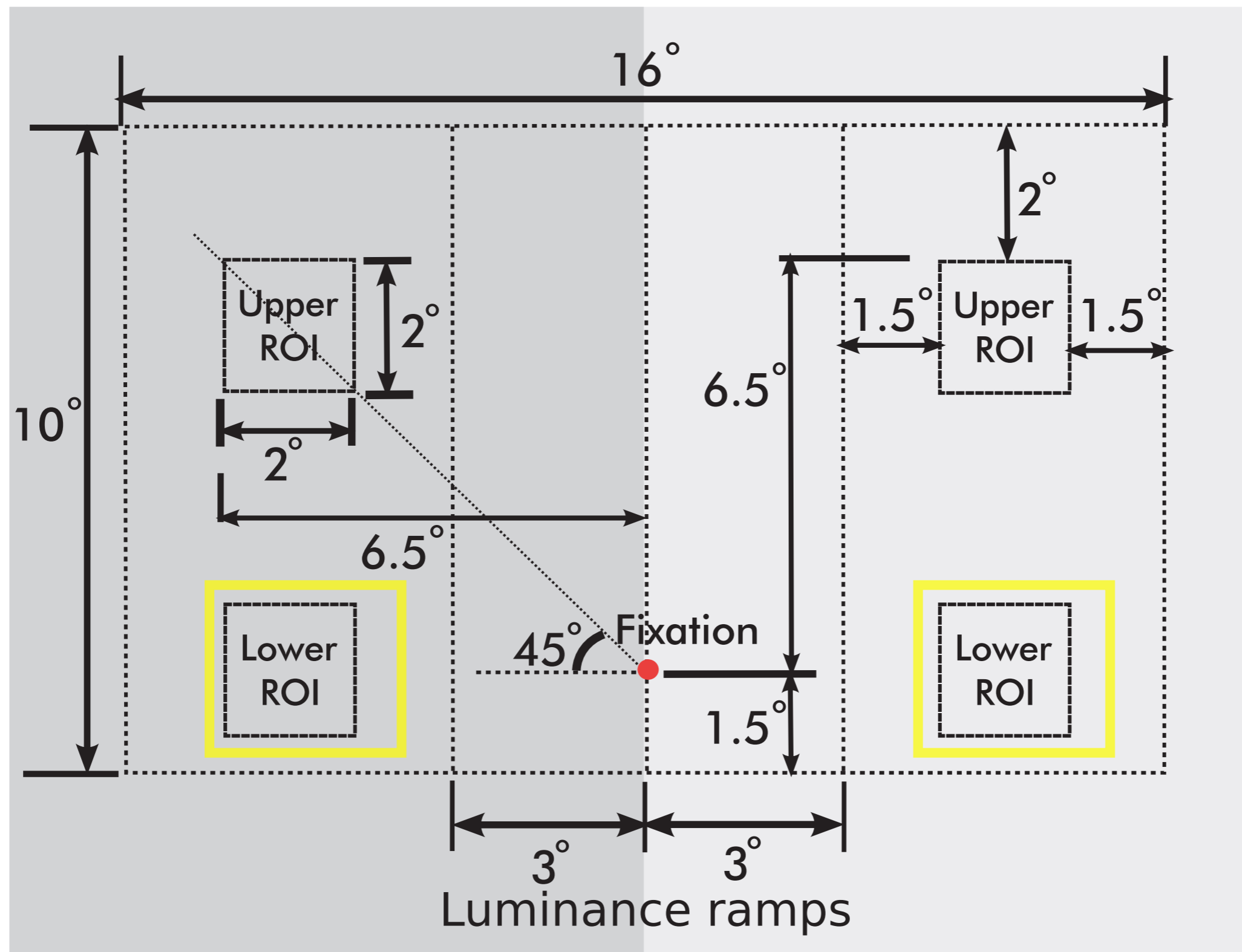


Craik-O'Brien effect

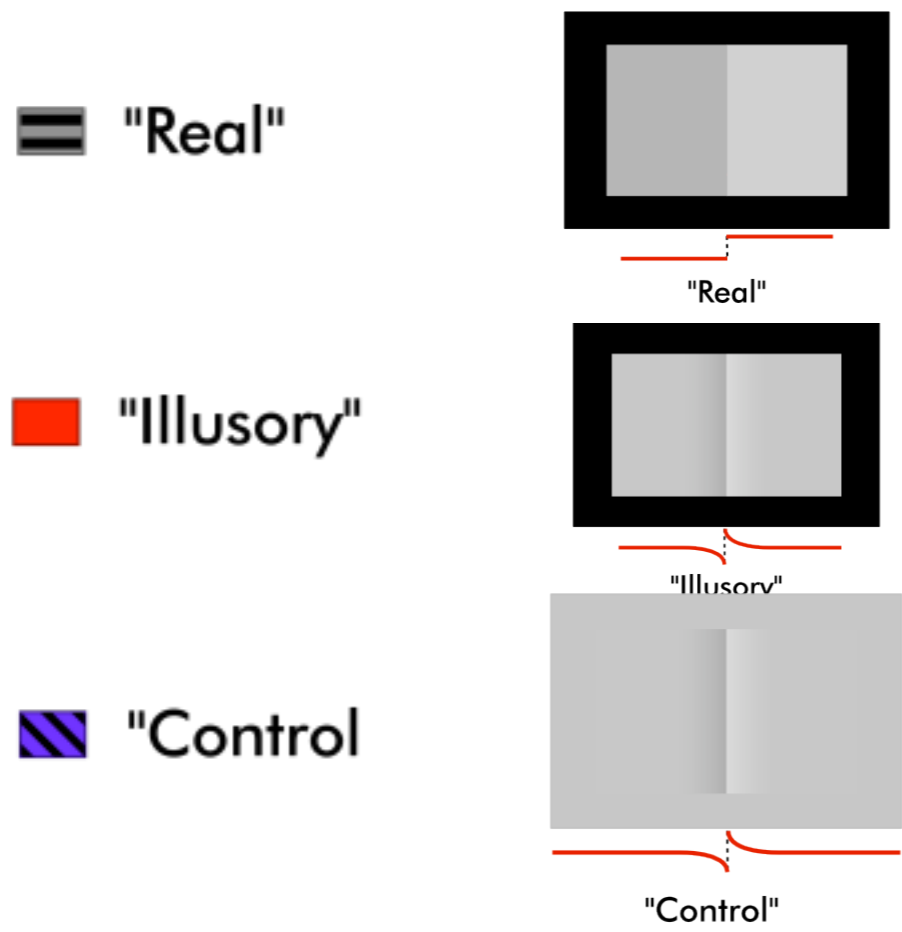
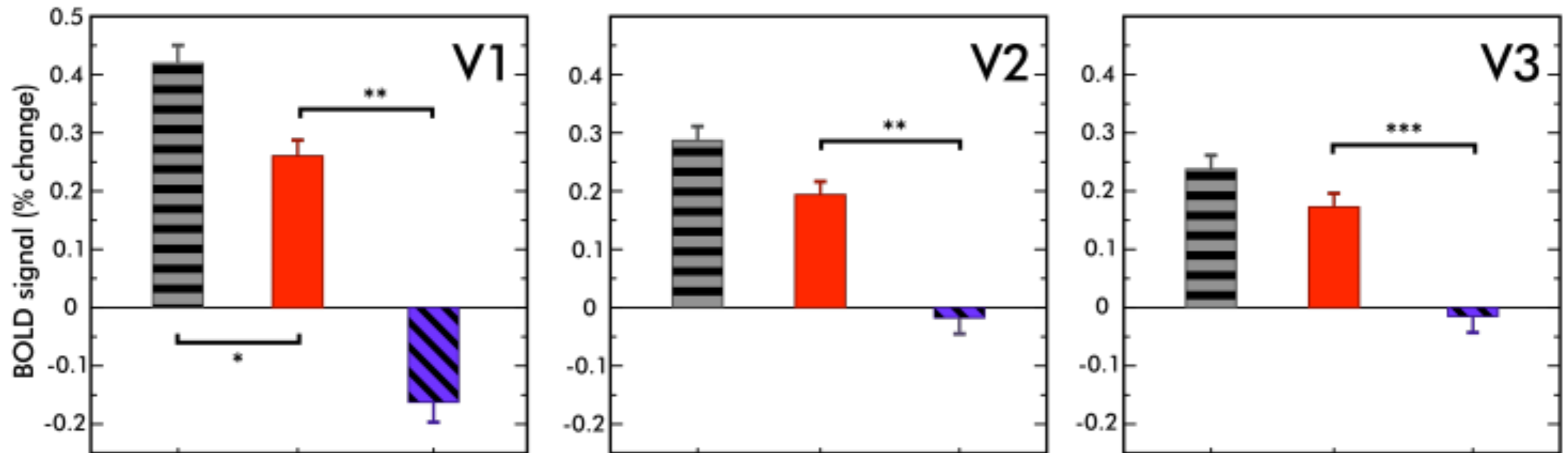




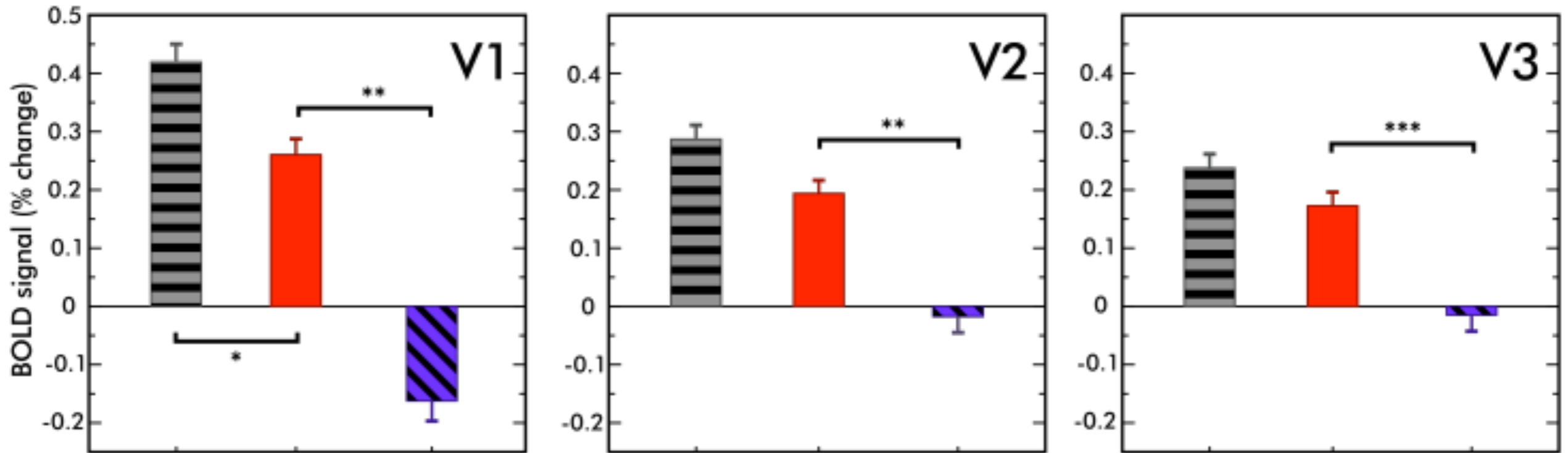
Regions of interest



Lower ROI



Lower ROI



▨ "Real"



"Real"

■ "Illusory"



"Illusory"

▨ "Control"



"Control"

Directed attention is
not important