

### **Visual cortex activity when viewing the Craik-O'Brian-Cornsweet Illusion**

Perna, A., Tosetti, M., Montanaro, D., and Morrone, M. C. (2005). Neuronal mechanisms for illusory brightness perception in humans *Neuron* **47**, 645-651.

<http://www.cell.com/neuron/retrieve/pii/S0896627305006069>

1. What two stimuli were used to measure responses in visual cortex (see figure 1)? How do they differ perceptually?
2. The authors claim that there is an absence of “edge-specific responses in primary visual cortex”. How do you interpret such a result?
3. The authors also used a second comparison stimuli (see figure 4). How does this differ from the test stimulus (both physically and perceptually)?
4. What is the main conclusion of the paper in terms of the generation of the COC illusion?
5. Can you think of how this work might be extended to examine illusions of brightness described in this chapter?