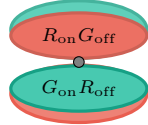


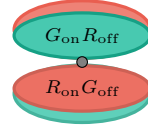
(a) Symmetric balanced
single opponent
receptive field

(b) Symmetric
imbalanced
single opponent
receptive field

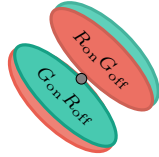
(c) Center/surround
single opponent
receptive field



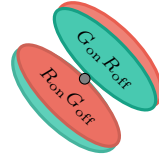
(a) Vertical R vs. G double-opponent cell receptive fields.



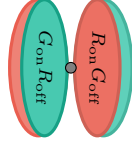
(b) Vertical G vs. R double-opponent cell receptive fields.



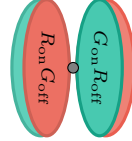
(c) Diagonal R vs. G double-opponent cell receptive fields.



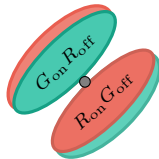
(d) Diagonal G vs. R double-opponent cell receptive fields.



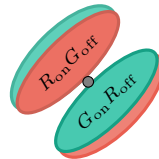
(e) Horizontal R vs. G double-opponent cell receptive fields.



(f) Horizontal G vs. R double-opponent cell receptive fields.



(g) Diagonal R vs. G double-opponent cell receptive fields.



(h) Diagonal R vs. G double-opponent cell receptive fields.

Figure 3: sean is cool

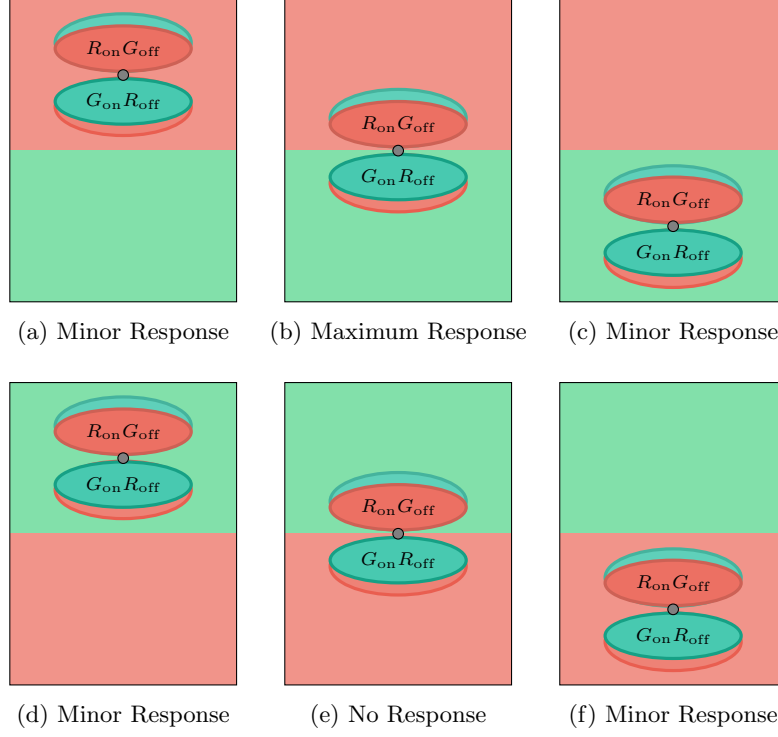


Figure 4: A double-opponent cell selective to horizontally oriented borders with red above and green below; only responsive to that particular stimulus. In Figure (b), the neuron is presented with its ideal stimulus: its R_{on} and G_{on} receptive fields are fully activated while its R_{off} and G_{off} receptive fields are completely unactivated. Figure (e) presents the neuron with the exact opposite stimulus, neither its R_{on} nor G_{on} receptive fields are activate at all, and both its R_{off} and G_{off} receptive fields are fully activated, ensuring no response possible from the cell. While its R_{on} receptive field might be strongly stimulated in (a) and (f), it's R_{off} receptive field cancels it out. Similarly, in (c) and (d) its G_{on} receptive field is stimulated but cancelled out by activity in its G_{off} receptive field.

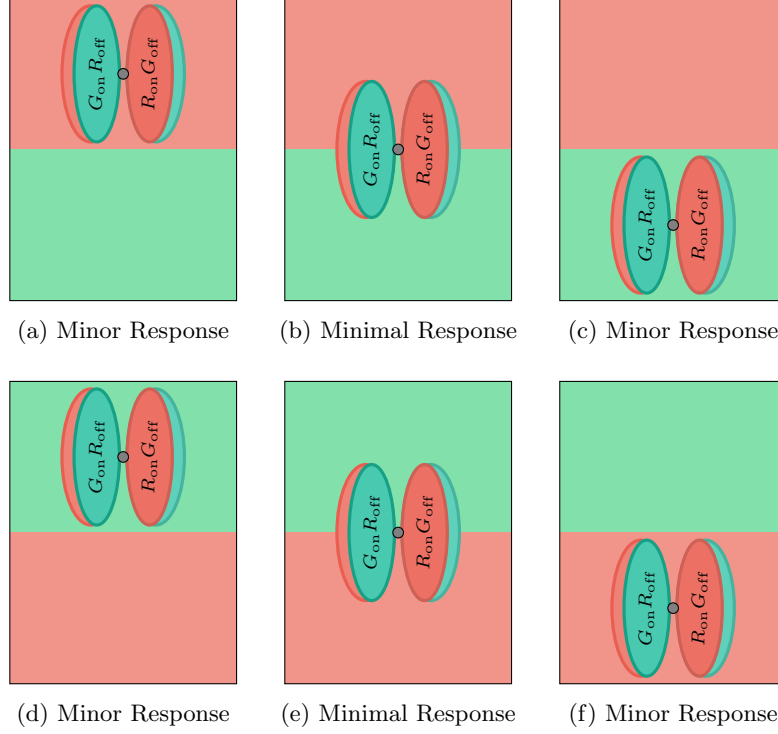


Figure 5: A double-opponent cell selective to vertically oriented borders with red to the right and green on the left; completely unresponsive to a horizontal border. While its R_{on} receptive field might be strongly stimulated in (a) and (f), its R_{off} receptive field cancels it out. Similarly, in (c) and (d) its G_{on} receptive field is stimulated but cancelled out by activity in its G_{off} receptive field. In (b) and (e) both of its R_{on} and G_{on} receptive fields are moderately activated, but again, cancelled out by activation in its R_{off} and G_{off} receptive fields, respectively.