Dissimilarity between feature ensembles triggers binocular rivalry without competing local features

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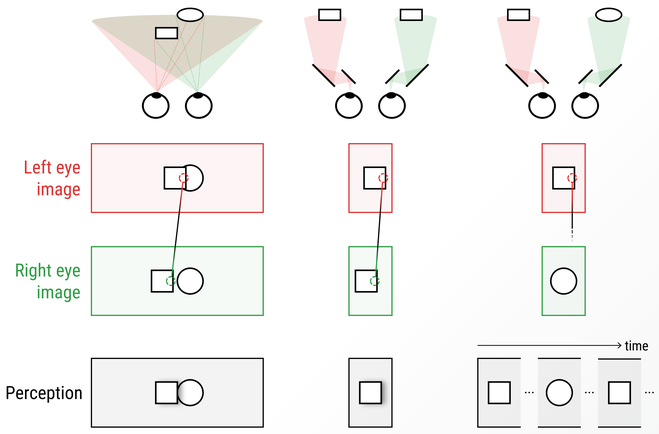
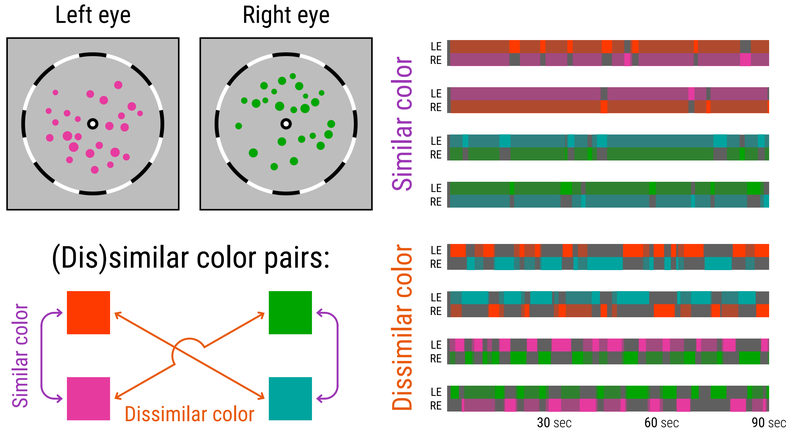
Binocular correspondence

enables the visual system to accommodate binocular images with different viewpoints. Without binocular correspondence, visual perception will alternate between the images spontaneously (binocular rivalry).



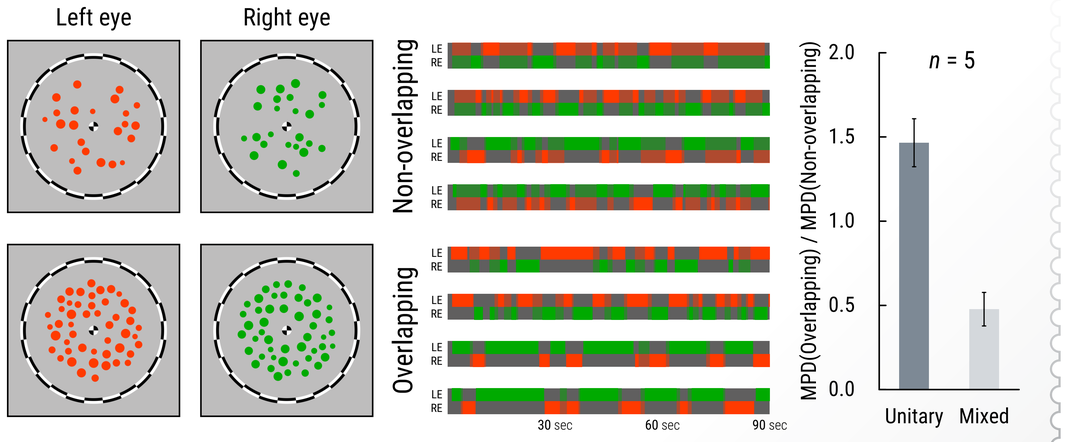
Experiment 1:

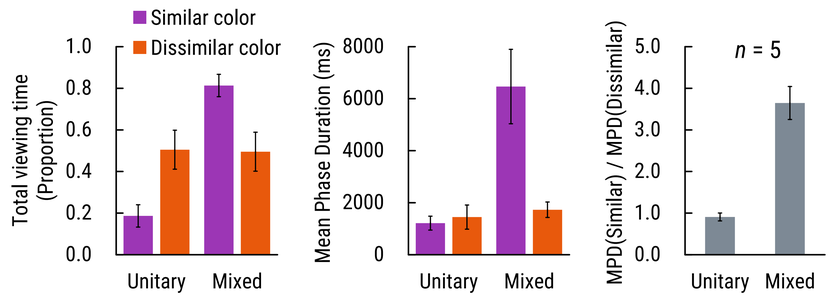
Will binocular stimuli with corresponding (similar) ensembles be incorporated as a whole (i.e., mixed percept) even without point-by-point correspondence?



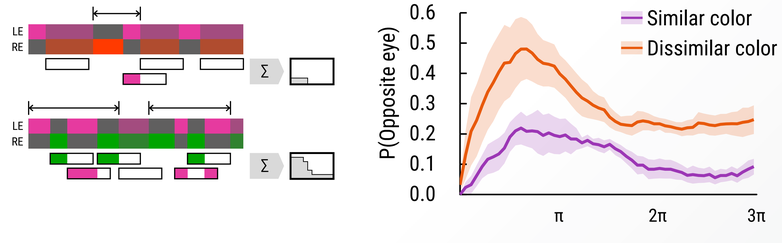
Experiment 2:

Does binocular conflict (i.e., overlap) influence rivalry dynamics of unitary percepts?





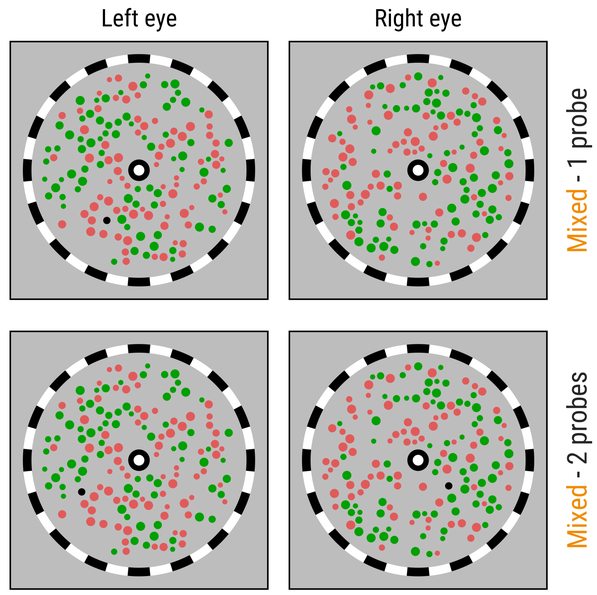
Color similarity increased the tendency to see mixed percept, yet without influencing rivalry dynamics of unitary percepts.

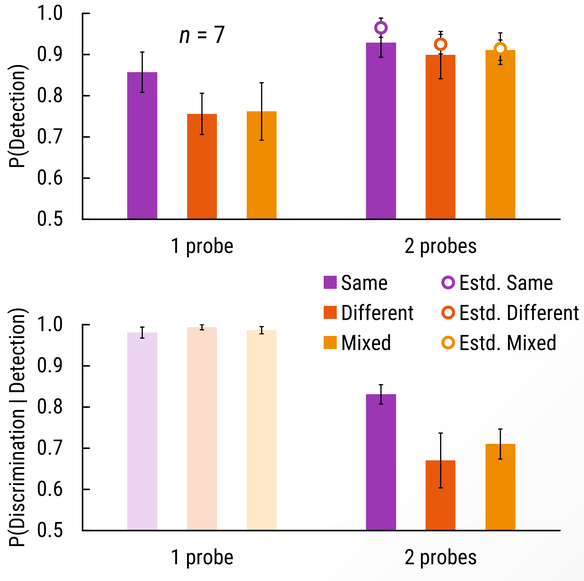


Perceptual alternation lasted longer with dissimilar ensembles.

Experiment 3:

Will incoherent (mixed) ensembles viewed by both eyes decrease the tendency to see mixed percept as different ensembles in each eye?





Mixed colors in both eyes decreased the probability of detecting one of the probes when there were two.

Ensemble correspondence contributes to stable visual perception.

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