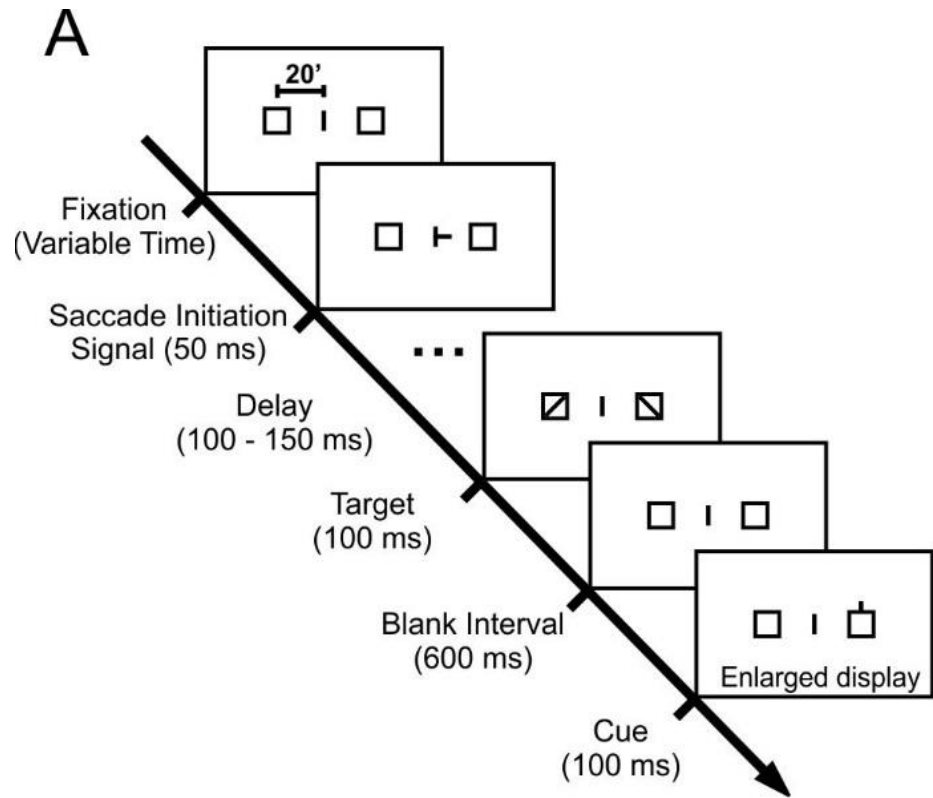


Microsaccadic Modulations of Visual Sensitivity Across the Foveola

Lab Meeting: 11/28/2018

Natalya Shelchkova

Background

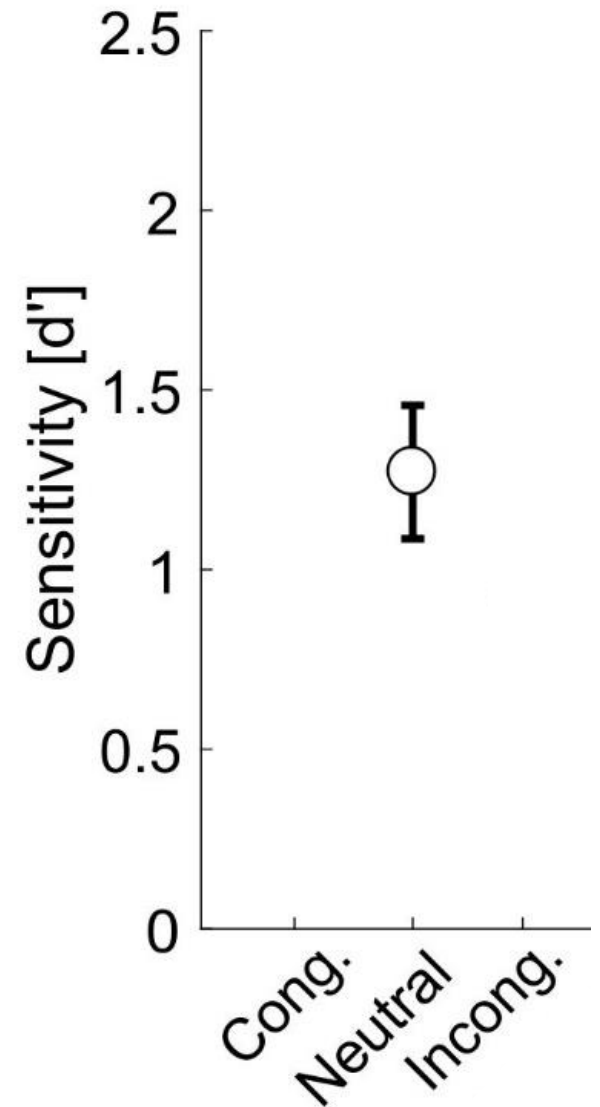
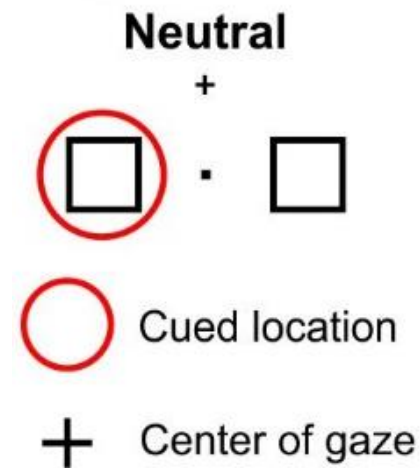


Background

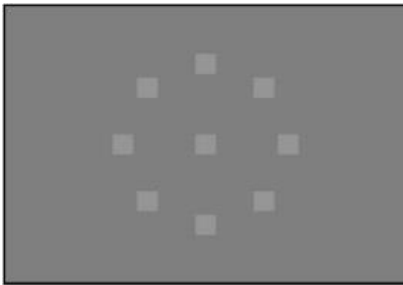
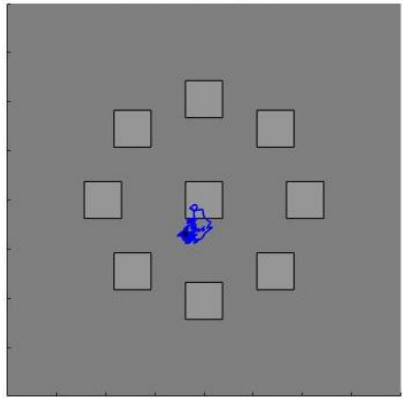
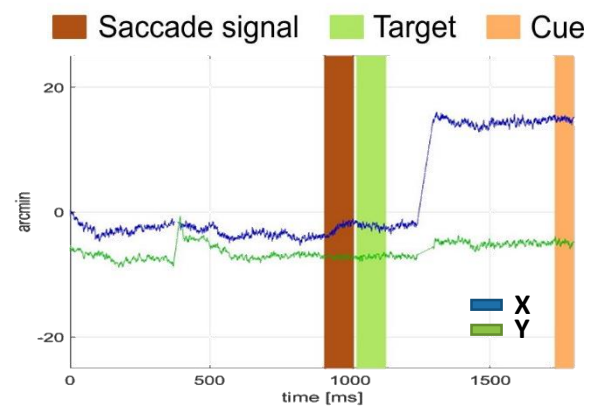
- Perceptual *enhancement* in trials where the subject planned a microsaccade to the response location (**congruent**)
- Perceptual *detriment* in trials where the subject planned a microsaccade opposite of the response location (**incongruent**)

Question:

What is the spatial resolution of this perceptual enhancement?

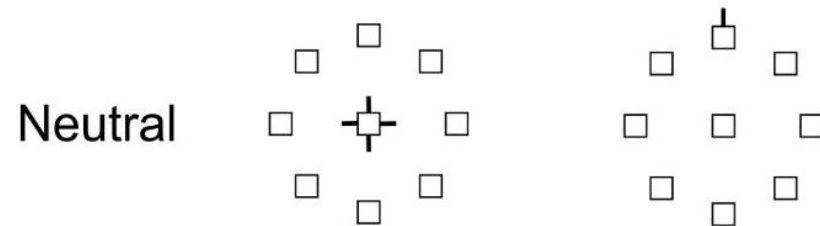
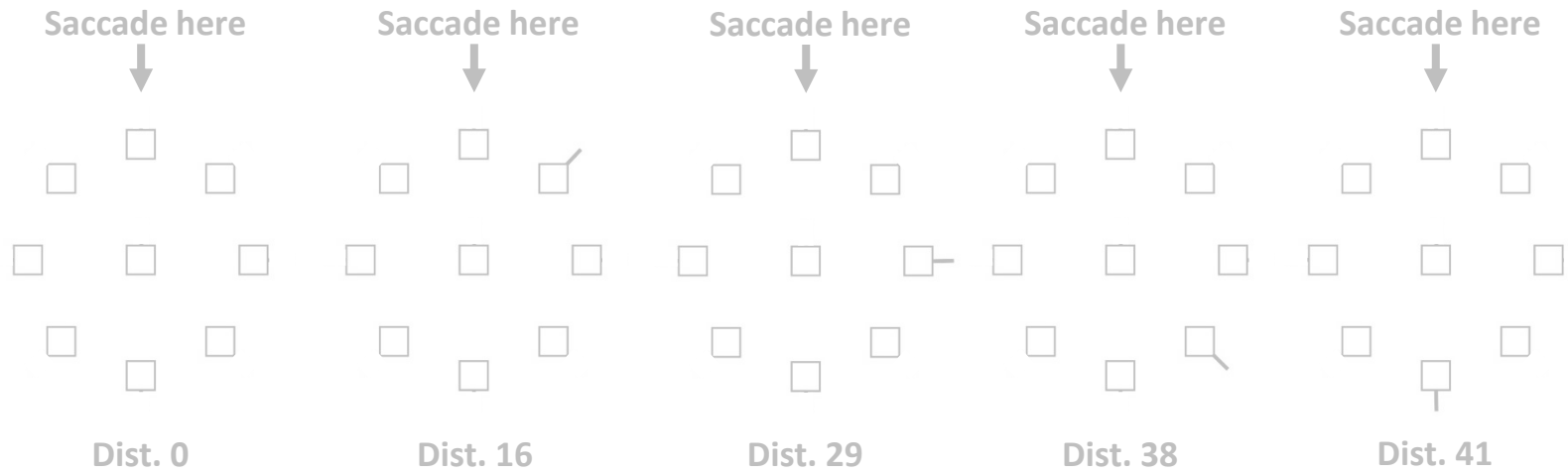
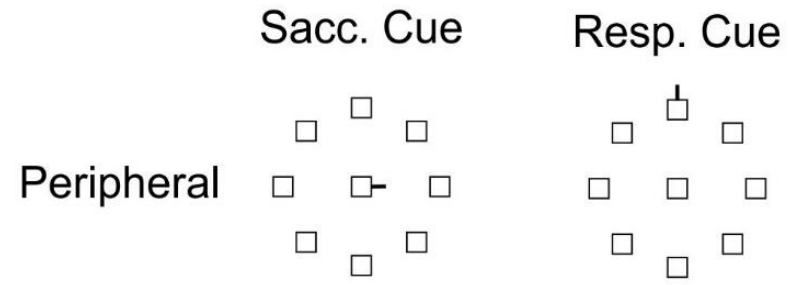


Methods



Fixation
(800 ms)

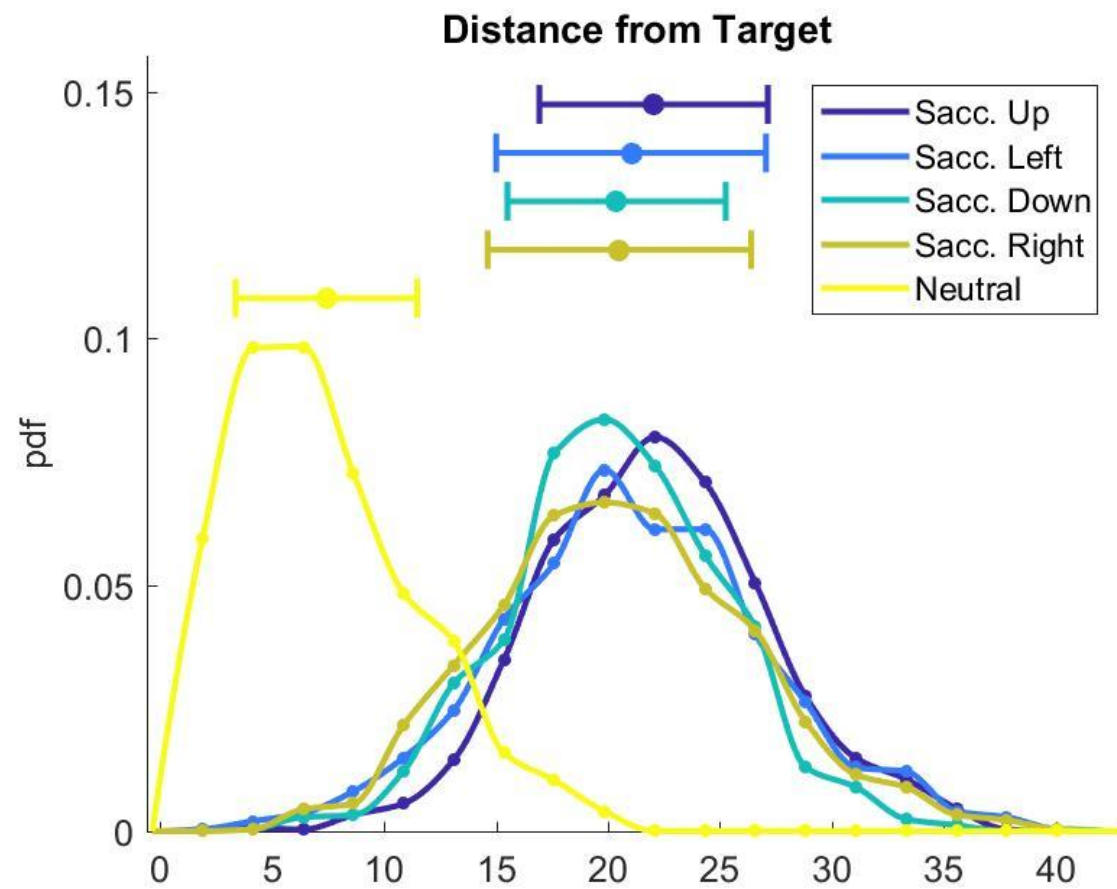
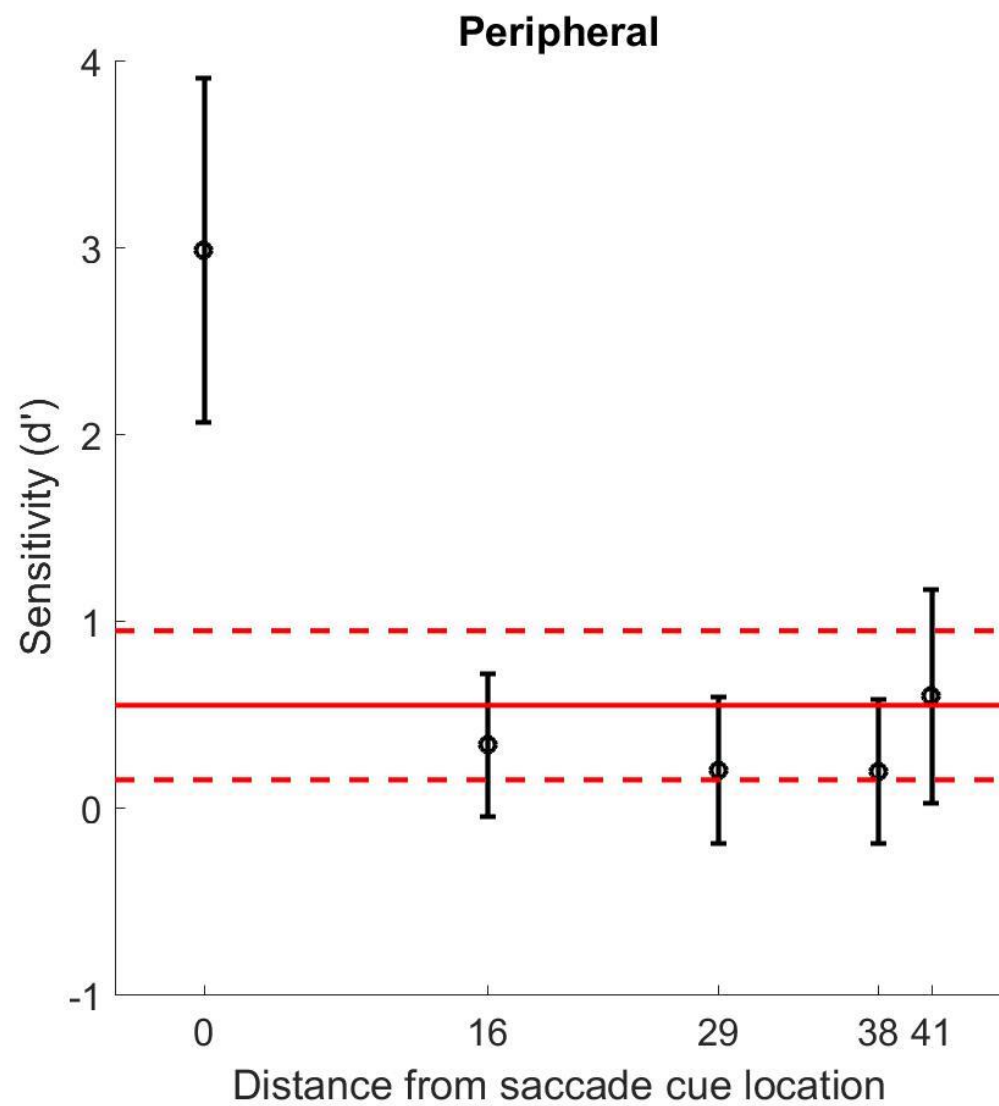
Conditions



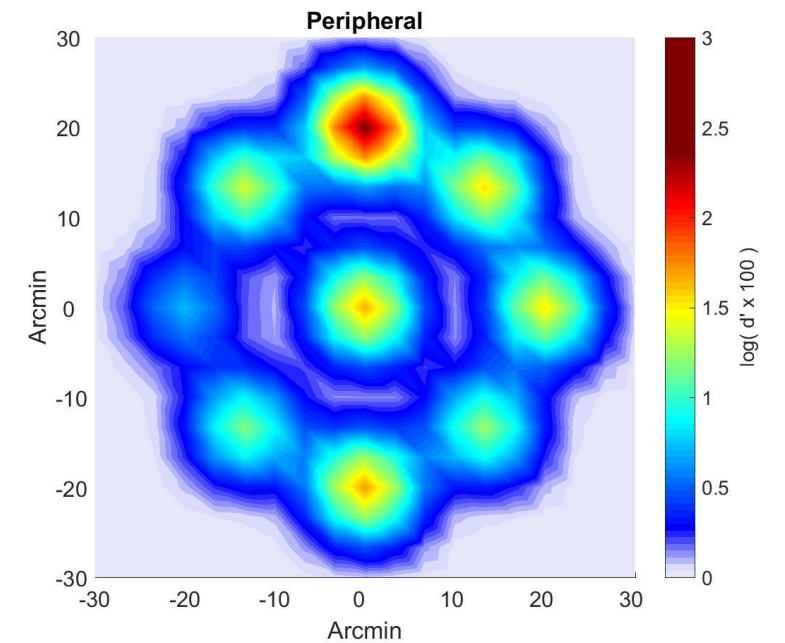
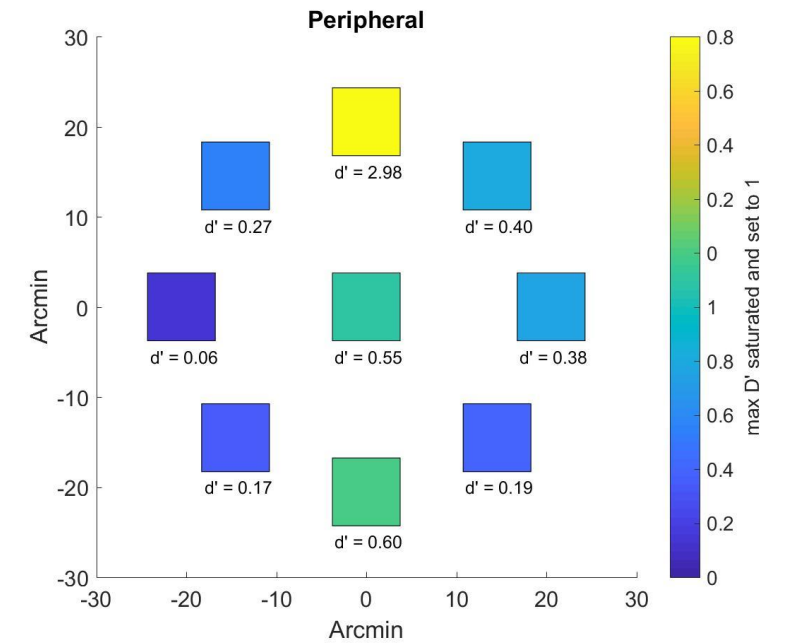
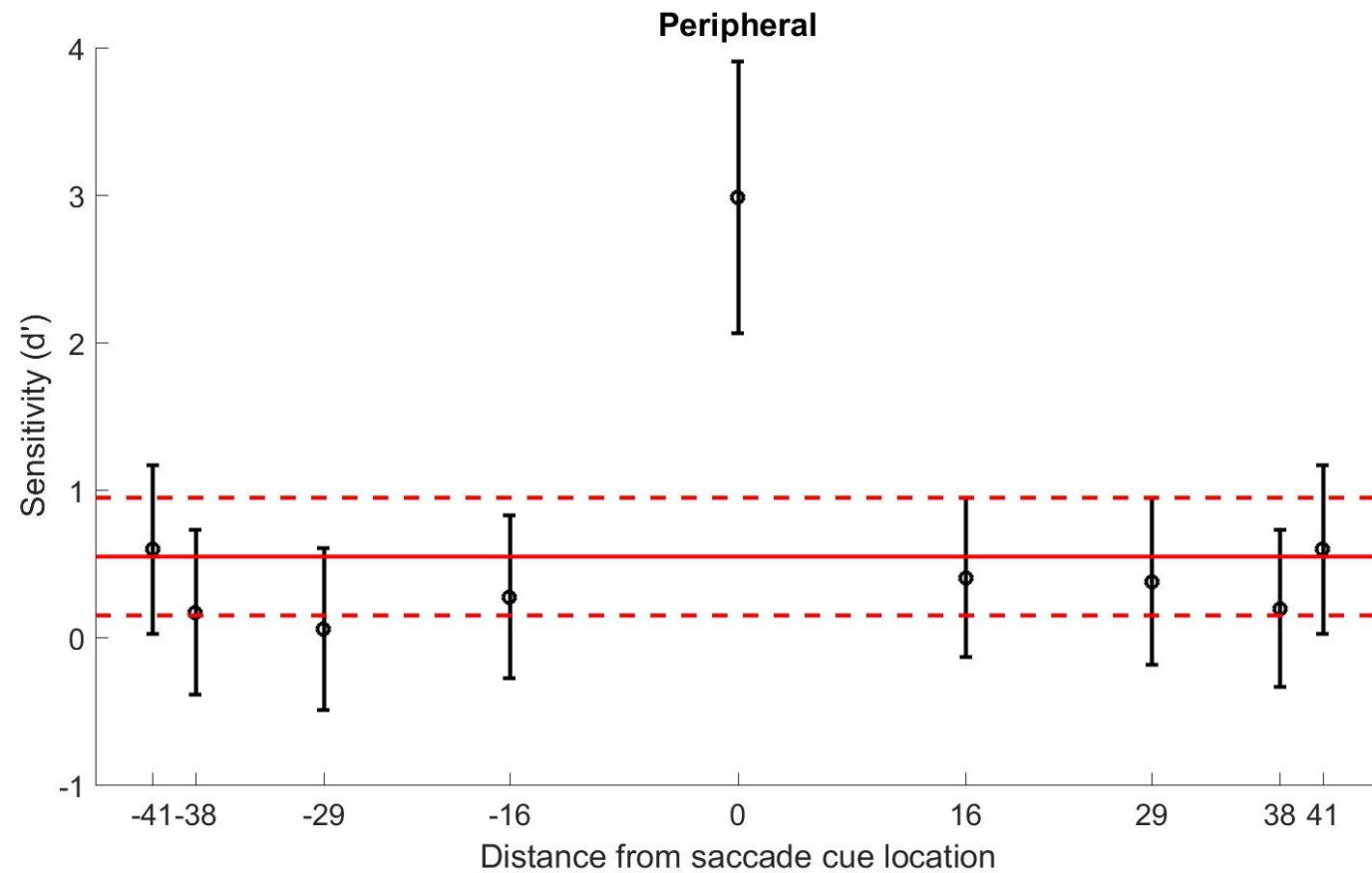
Trial Counts: Peripheral

Subject	Blinks	No Tracks	No Response	Trial Duration	Saccades	Early Ms	Gaze Off Center	Late Ms	Valid Trials	Total
NS	51	0	0	0	102	18	3	108	993	1275
Z031	10	27	0	0	205	18	50	41	1171	1522
Z042	20	43	5	0	799	88	65	635	1917	3572
Z095	32	29	1	0	335	184	64	179	2448	3272

Results: Peripheral



Results: Peripheral

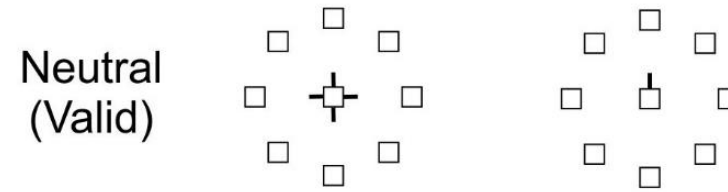


Results: Fixation

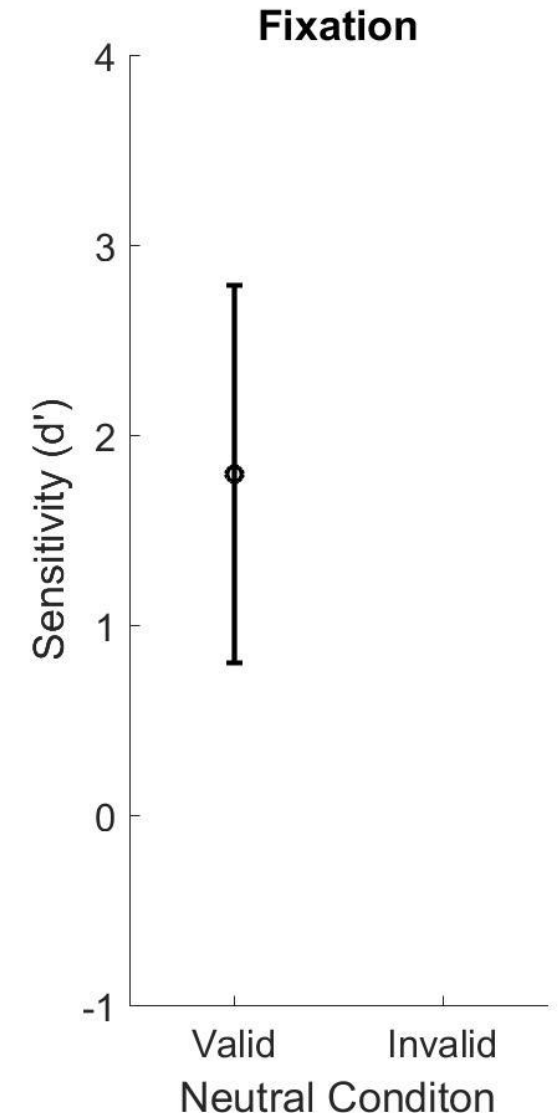
Question:

What happens to perception at the fixation location during microsaccade preparation?

- *Detriment* in perception during microsaccade preparation



Subject	Valid	Invalid
NS	21	55
Z031	37	84
Z042	50	239
Z095	123	239



Results: Fixation

