

MS Thesis Announcement

**Effects of Distance and Grouping on Visual Attention for Static and
Dynamic Displays**

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In a natural environment, our visual system receives a staggering amount of information from the environment. Attentional mechanisms are needed to filter irrelevant information and select the most significant for our task. We can't be conscious of everything in the environment; our visually guided actions are possible through the ability of attending to one or a few objects at a time. Because the static stimuli have been intensely researched, we are focusing mainly on the dynamic stimuli. The goal of this research was to investigate the deployment of exogenous attention to the dynamic stimuli forming perceptual groups. We studied visual attention by conducting 3 experiments both in dynamic and in static conditions with novel features. Particularly, we examined how attention spreads within or outside of a moving object and how perceptual grouping by color and motion affects the allocation of attention. The results of the experiments demonstrate clearly the effects of distance, color and motion on the allocation of visual attention. We conclude that exogenous attention follows the reference frame moving with the stimulus. We also showed that the exogenous attention is allocated not just to the cued element but also to the all elements forming the group.