Methods:

1. *Participants*. 5 healthy participants with normal vision at the ages 21-28 participated in all different parts of the experiment. 3 females, 2 right-handed with right dominant eye, 3 right-handed with left dominant eye. All participants were given full and detailed explanation about the eye tracker device and the behavioral task, and were paid for their participation. Informed consents were obtained from all the participants, in accordance with the approved Declaration of Helsinki for this project.
2. *Experimental Setup*. The experiment took place in a dark and quiet room where the participants sat in front of a high-resolution, fast response time computer screen (VPixx, 1920x1080, 120Hz) and their EyeM were recorded and used for manipulation in real-time using an eye-tracker device (EyeLink II). Throughout each trial only the dominant eye of the participant was opened and tracked (at 100Hz sampling rate) – the other eye was blindfolded. The participants sat 1 meter away from the screen and placed their chin on a chinrest to reduce head movements.
3. *Experimental Design*. We tested the performance of participants in a five forced choice shapes recognition tasks. Images of 5 basic shapes were used: Square, rectangle, circle, triangle and a parallelogram (fig2). These images were presented in two forms, “large” and “small”, as described below. Participants were tested during five days. During days 1-3 they performed two tunneled vision sessions, the first one with large images and the second one with small images. On day 4 they performed two tunneled vision sessions, both with small images. On day 5 they performed 4 sessions of natural viewing, 2 repetitions with each image size: large, small, large, small. Each trial lasted up to 30 seconds, there were at least two repetitions of each shape in each session (10-12 trials per session, only the first two repetitions of each shape were used for analysis), and hence each session lasted up to 12 minutes. At the end of each trial participants reported which of the 5 shapes was presented, got a ‘correct/wrong’ feedback and a second chance if needed. In cases of 2 wrong answers, participants were presented with the right answer before starting the next trial (only correct trials were used for the analysis).

In the Tunneled vision sessions, participants had to identify a shape that was “hidden” on the screen. At any moment only a “window” around their current gaze position was exposed. In the Natural vision sessions, participants had to identify the same shapes, naturally viewing them with no constrains.

1. *Stimuli and gaze windows*. Two kinds of constrains were created (‘Large’ and ‘Small’). The large images were 10.80±0.15x10.80±0.15 deg (720±10x720±10 pixels), and the gaze window was 2.90±0.15x1.90±0.15 deg (190±10x130±10 pixels). The small shapes were 0.90±0.03x0.90±0.03 deg (60±2x60±2 pixels) with gaze window 0.24±0.03x0.16±0.03 deg (13±2x9±2 pixels), keeping a constant ratio between images and windows in both conditions.
2. *Eye movement processing*. A velocity based algorithm (modified from Engbert and Kliegl, 2003 and Bonneh et al., 2010) was used for detecting all saccades and drift. We used the following threshold parameters for saccades detection: 16 deg/sec minimal peak velocity and 0.3 deg minimal amplitude. Each detected saccade was visually examined to verify the quality of saccadic detection. Fixation periods between saccades were labeled drift only if they exceeded 3 samples, a 30 ms minimum duration. [[ANYTHING TO ADD ABOUT THE SPECTRAL AND CORRELATION ANALYSIS?]] this is what I meant in the question in 6 should I start writing the captions?
3. *More detailed on the different analysis made for each figure?? (or those details are written in the captions?)*[[LEAVE IT TO SEE WHAT IS MISSING IN THE CAPTIONS]]