Instructions for Experiment y2
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Overview
Experiment y2 is a contrast discrimination experiment that uses a selective attention task. It is designed to measure accuracy of performance as a function of the separation between the stimuli at a primary location and secondary location.

Stimuli
The task is to judge a stimulus as an increment or a decrement in luminance relative to the surrounding. Two small disks are displayed at fixed eccentricity on the lower left corner of the screen. One stimulus appears at a cued primary location, while the other stimulus appears at one of two secondary locations, which are either right or the left to the stimulus at the primary location.

Display Sequence and Responses
The experiment has 8 blocks. Each block consists of 30 trials. There are pauses between the blocks. Each trial begins with a fixation point, a location cue pointing at the primary location, and a small disk representing the stimulus. Event sequence of a trial is as follows:

1. **Fixation and Cue:** A trial begins with a fixation cross in the middle of the screen and a location cue for 0.5 seconds. The location cue points to the primary location. It appears in the beginning of all trials. You have to fixate your eyes on the cross throughout the trial. If you break the fixation, we will not be able to use data from that trial.

2. **Warning Interval:** Cue disappears and the fixation point stays on the screen for 0.5 seconds.

3. **Display:** The fixation, and the two stimuli are presented for 0.1 second.

4. **Prompt:** A question mark appears under the fixation until you make a response. Your task is to decide if the stimulus at the primary location was an increment or a decrement in luminance relative to the surrounding. Use numeric keypad for your response. Press “0” key if you think the luminance is a decrement; press “period” key if you think the luminance is an increment. Take your time to think before you respond. For the most difficult displays, you can make an educated guess.

5. **Feedback:** After the response, there is either a tone indicating the error, or no tone indicating the correct response. If you hear five short tones after your response, it means you broke the fixation or blinked.

6. **Intertrial Interval:** There is a 1.0 second interval between trials. You can blink your eyes during this interval.

Please rest during the pauses between the blocks. Close your eyes and relax. Do not try to rush through the experiment.
**Breaks and Aborts**
If you need an extra break during the experiment you can delay your response when the prompt appears. You can respond when you are ready.

If you want to abort the experiment, you can press “a” key and hold it. It aborts the experiment and saves the data obtained until the abort. If necessary, you can use the universal Mac abort by pressing CMD-<period>. To restore the display you must press CMD-<zero> followed by typing ‘clear screen”. You will not be able to see what you are typing on the screen. So, type carefully. This will put you back in MatLab.

**Analysis**
Run the program “diann12” for the analysis by typing its name in the MatLab commend window. It prints the results to the commend window. You can print the text output file and the graphs.

Thank you for your participation.

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