**METHODS EXPERIMENT 1**

**Settings used:**

* Screen luminance
* Distance to screen
* Size of display elements in pixels

The task was split up into two different sessions (occurring in the morning and evening of the same day, or on two separate days). During each session, subjects completed 1000 trials of the task, for a total of 2000 trials per subject.

On each trial, the category *C* ([feeder present, feeder absent]) was drawn randomly, with an equal number of trials of each category being presented in total. The number of pigeons on each trial was either 6, 9, 12, or 15, with an equal number of trials (500) presented for each pigeon number condition. Category type and pigeon number were presented in randomized order.

On C=1 (Feeder Present) trials, the location of the feeder was drawn from a gaussian distribution centred in the mid-point of the screen. For each pigeon, the probability of affiliation was set to 50%. The location of each affiliated pigeon is drawn from a gaussian distribution centred at the hidden feeder location.

The subject categorized the trial as either feeder present or feeder absent, responding with their right or left hand respectively. They simultaneously reported their confidence on a 4-point scale, with index finger responses indicating LOW certainty and pinky finger responses indicating HIGH certainty.

Screen is 44 cm from edge of table at a slight angle

MacBook Air