**Appendix A: Settings and Materials**

The experimental settings between paired participants during the communication round:



The experimental settings across a group during the communication round:



For each version of the stimuli, 23 scenes were created in the following way:

First, we created 28 static items (see *initial set*). The *initial set* contained exactly seven tokens of each of the four novel shapes, and each item was associated with a unique blue-hued fill pattern.

For each version, 23 items were randomly drawn from the 28 static items in the *initial set,* with the constraint that each type of shape should appear between four and seven times.

Then, each of these 23 static items was associated with an angle in order to create a moving scene. Angles were randomly selected from a set of 16 salient angles within the 360-degree-range (0⁰, 30⁰, 45⁰, 60⁰, 90⁰, 120⁰, 135⁰, 150⁰, 180⁰, 210⁰, 225⁰, 240⁰, 270⁰, 300⁰, 315⁰, 330⁰), following the constraint that in each version, each type of shape had to be associated with at least one angle from each of the four quadrants. The rest of the items’ angles were randomly drawn from this set of angles.

***Initial Set:***

|  |  |  |
| --- | --- | --- |
| Item Number | Shape | Stimuli |
| 1 | 1 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\1.png |
| 2 | 1 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\2.png |
| 3 | 1 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\3.png |
| 4 | 1 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\4.png |
| 5 | 1 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\5.png |
| 6 | 1 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\6.png |
| 7 | 1 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\7.png |
| 8 | 2 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\8.png |
| 9 | 2 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\9.png |
| 10 | 2 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\10.png |
| 11 | 2 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\11.png |
| 12 | 2 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\12.png |
| 13 | 2 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\13.png |
| 14 | 2 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\14.png |
| 15 | 3 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\15.png |
| 16 | 3 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\16.png |
| 17 | 3 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\17.png |
| 18 | 3 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\18.png |
| 19 | 3 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\19.png |
| 20 | 3 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\20.png |
| 21 | 3 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\21.png |
| 22 | 4 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\22.png |
| 23 | 4 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\23.png |
| 24 | 4 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\24.png |
| 25 | 4 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\25.png |
| 26 | 4 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\26.png |
| 27 | 4 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\27.png |
| 28 | 4 | C:\Users\Limor\Google Drive\Documents\Doctorate - PHD!!!\PhD PROJECT\Experiment 1 - Group Size\Stimuli\transparent - new items\28.png |

***Version 1:***

| Item Number | Angle |
| --- | --- |
| 1 | 210 |
| 2 | 270 |
| 3 | 90 |
| 4 | 330 |
| 5 | 30 |
| 6 | 300 |
| 7 | 135 |
| 8 |  |
| 9 | 270 |
| 10 | 150 |
| 11 | 330 |
| 12 | 30 |
| 13 |  |
| 14 | 120 |
| 15 |  |
| 16 | 45 |
| 17 | 315 |
| 18 |  |
| 19 | 135 |
| 20 | 240 |
| 21 | 360 |
| 22 | 60 |
| 23 | 360 |
| 24 | 180 |
| 25 | 315 |
| 26 |  |
| 27 | 120 |
| 28 | 225 |

***Version 2:***

| Item Number | Angle |
| --- | --- |
| 1 | 150 |
| 2 | 30 |
| 3 | 210 |
| 4 | 90 |
| 5 | 300 |
| 6 | 360 |
| 7 | 240 |
| 8 | 120 |
| 9 | 45 |
| 10 | 225 |
| 11 | 300 |
| 12 |  |
| 13 | 180 |
| 14 | 330 |
| 15 | 60 |
| 16 | 180 |
| 17 | 315 |
| 18 |  |
| 19 |  |
| 20 |  |
| 21 | 240 |
| 22 | 90 |
| 23 | 135 |
| 24 | 210 |
| 25 | 45 |
| 26 | 270 |
| 27 |  |
| 28 | 330 |

***Version 3:***

| Item Number | Angle |
| --- | --- |
| 1 | 150 |
| 2 |  |
| 3 | 360 |
| 4 | 210 |
| 5 | 60 |
| 6 | 240 |
| 7 | 315 |
| 8 | 270 |
| 9 | 90 |
| 10 | 210 |
| 11 | 45 |
| 12 | 135 |
| 13 | 330 |
| 14 | 180 |
| 15 | 45 |
| 16 | 135 |
| 17 |  |
| 18 | 180 |
| 19 | 240 |
| 20 | 315 |
| 21 | 270 |
| 22 |  |
| 23 | 300 |
| 24 |  |
| 25 | 120 |
| 26 | 225 |
| 27 |  |
| 28 | 30 |