

Hearts and Flowers

Task Design

Example of Settings Menu (for Researchers)

Hearts and Flowers: Task Settings

<input checked="" type="checkbox"/> 1: Hearts	<input checked="" type="checkbox"/> 2: Flowers	3: Mixed	4: Mixed
# practice trials	# practice trials	# practice trials	
<input type="range" value="6"/>	<input type="range" value="6"/>	<input type="range" value="6"/>	
# correct practice trials	# correct practice trials	# correct practice trials	
<input type="range" value="2"/>	<input type="range" value="2"/>	<input type="range" value="3"/>	
# test trials	# test trials	# test trials	# test trials
<input type="range" value="12"/>	<input type="range" value="16"/>	<input type="range" value="12"/>	<input type="range" value="24"/>
Stimulus present time(ms)	Stimulus present time(ms)	Stimulus present time(ms)	Stimulus present time(ms)
<input type="range" value="3000"/>	<input type="range" value="3000"/>	<input type="range" value="3000"/>	<input type="range" value="1250"/>
Inter-stimulus interval(ms)	Inter-stimulus interval(ms)	Inter-stimulus interval(ms)	Inter-stimulus interval(ms)
<input type="range" value="500"/>	<input type="range" value="500"/>	<input type="range" value="500"/>	<input type="range" value="500"/>

[!\[\]\(6af8fb3374762cb7dc918a112e102b36_img.jpg\) Home](#) [!\[\]\(31dc830bf8206b94b5a585ce61ce9013_img.jpg\) Back](#)

Settings Menu Explained

- Individual blocks can be selected for inclusion or exclusion from the task.
- We implemented an optional second mixed block to:
 - Understand how experimentally varying trial speed affects accuracy
 - Capture variability in performance across a wider range of participant age and/or ability.
- # practice trials: The maximum number of practice trials that a participant will do
- # correct practice trials: Enables the practice trials to end early if the participant gets this many practice trials correct in a row

Hearts and Flowers Game



Go



This is the
heart game.
Here's how you play it.

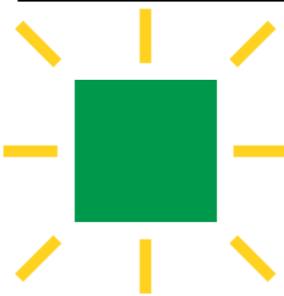
Next

Instructions

- Participants have a fixed set of instructional trials (regardless of performance).
- Participants cannot continue until they select the correct answer.



When you see a heart,
press the button on
the same side.



If correct:

9:22 AM Fri Oct 6

43% 



Great! That's right!

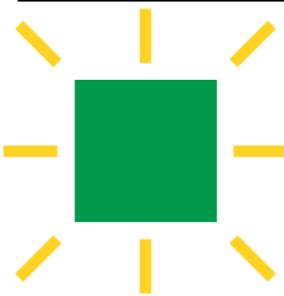
If incorrect:

12:46 PM Fri Oct 6

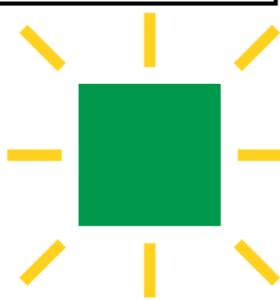
50%



That's not right.
Try again.



The heart is on the right side.
Press the right button.



If correct:

9:22 AM Fri Oct 6

43% 



Great! That's right!

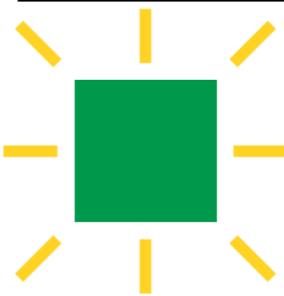
If incorrect:

12:46 PM Fri Oct 6

50%



That's not right.
Try again.





Time to practice!

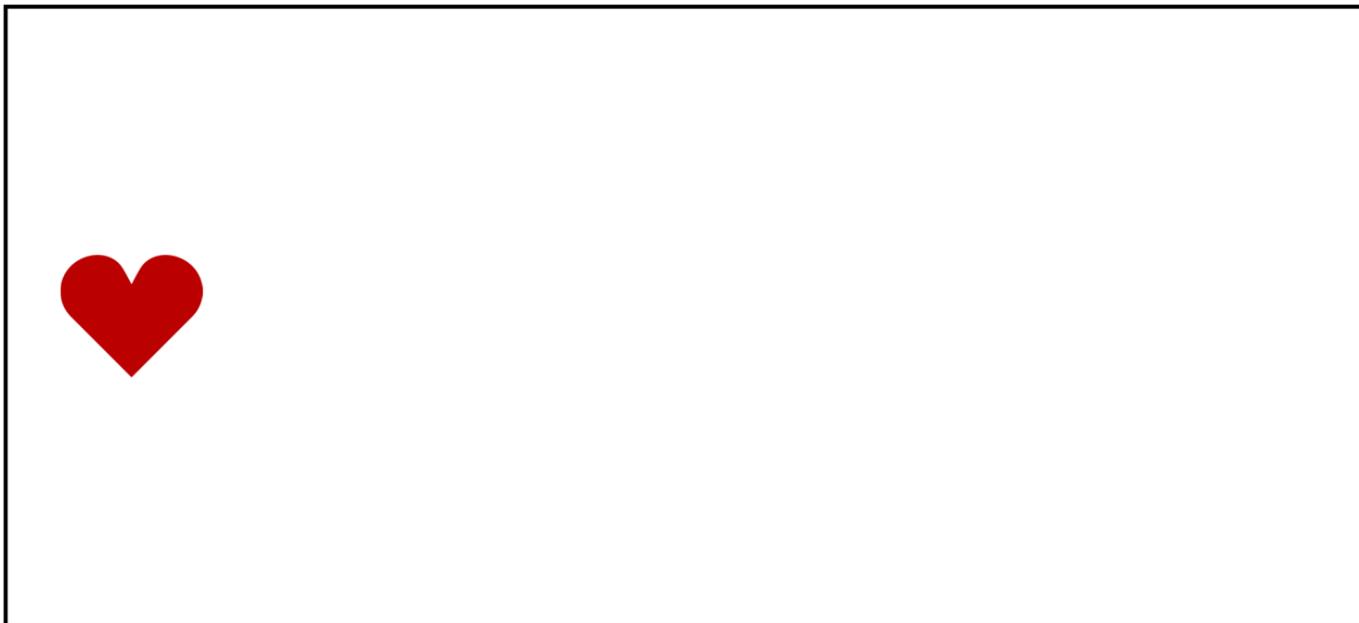
Go

Practice

- Our app allows the researcher to customize the number of practice trials.
- You can also allow the practice trials to end early (e.g., if participants get three practice trials correct in a row).

9:22 AM Fri Oct 6

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If correct:

9:22 AM Fri Oct 6

43% 



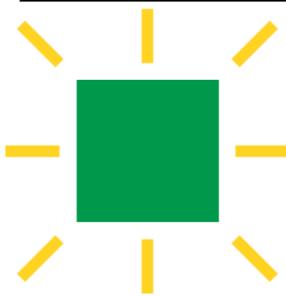
Great! That's right!

If incorrect:

9:22 AM Fri Oct 6

43%

Remember!
When you see a HEART,
press the button
on the SAME side.



This time the game will go faster.
It won't tell you if you are right or wrong.



Try to keep up!

Next



Try to answer
as fast as you can
without making mistakes.

If you make a mistake,
just keep going!

Next



Time to play!

Go

Test Trials

- Each trial consists of a fixation cross followed by the presentation of a heart on the left or right side of the screen.
- To maintain balance between right/left stimulus presentation and prevent long sequences, repetitive sequences using only one side, we grouped trials into sets of 4.
- Within each set, 2 trials are randomly assigned to each side.

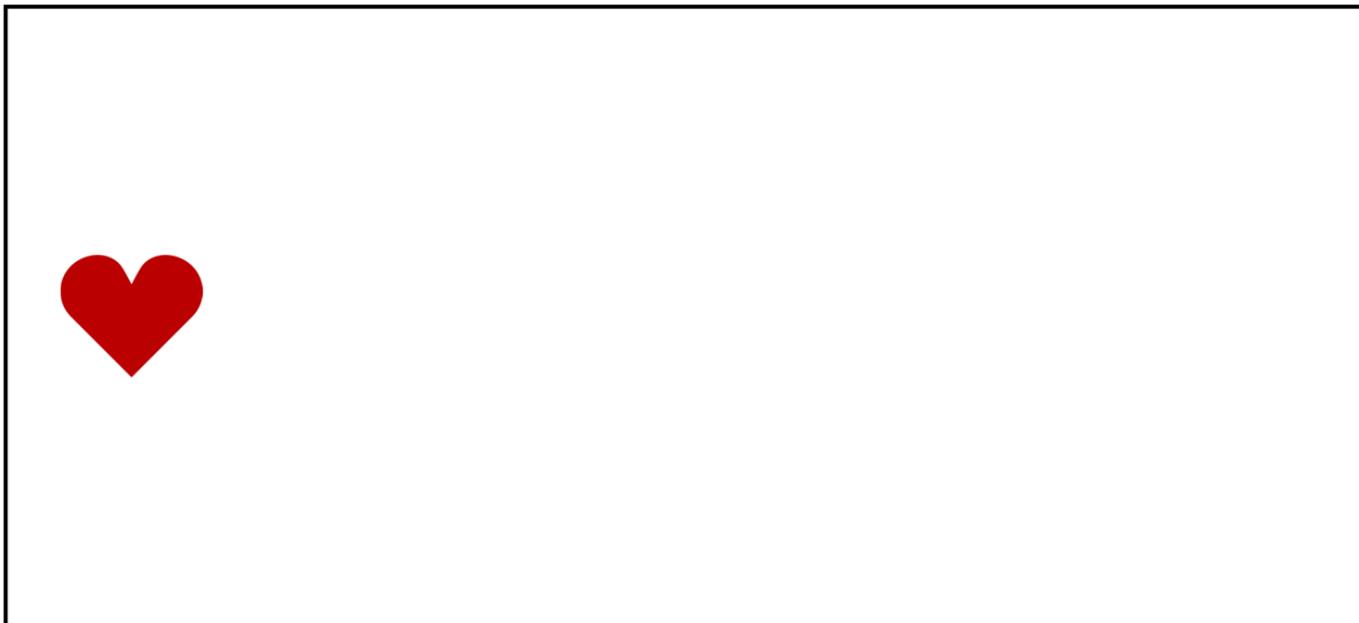
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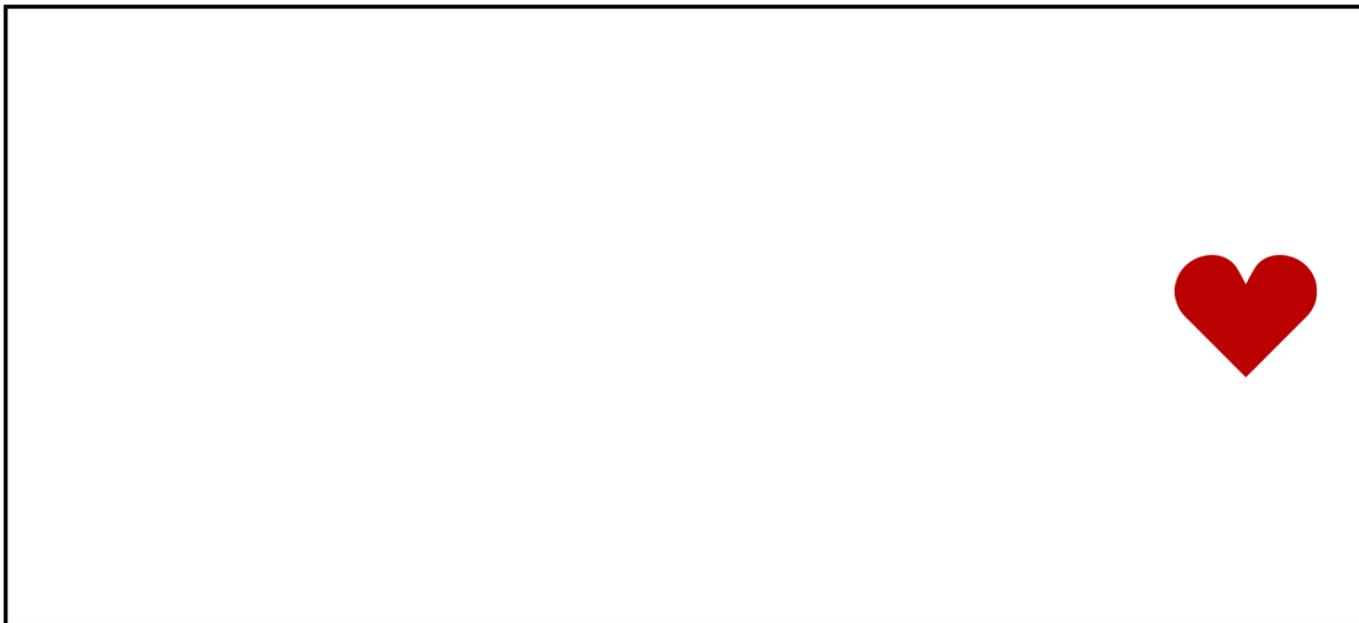
9:23 AM Fri Oct 6

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12:47 PM Fri Oct 6

50% 





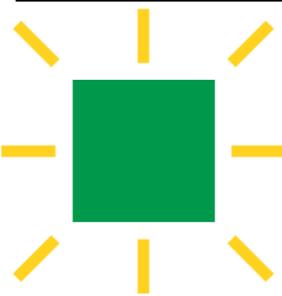
This is the
flower game.
Here's how you play it.

Next

Instructions

- Participants have a fixed set of instructional trials (regardless of performance).
- Participants cannot continue until they select the correct answer.

When you see a flower,
press the button
on the opposite side.



If correct:

9:22 AM Fri Oct 6

43% 



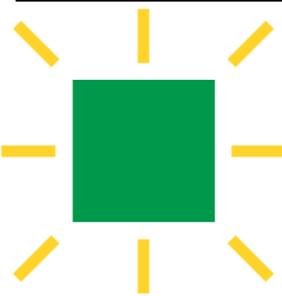
Great! That's right!

If incorrect:

12:48 PM Fri Oct 6

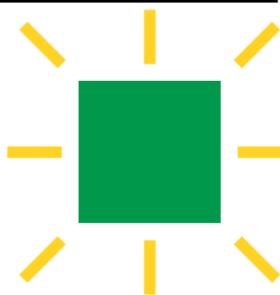
Wi-Fi 50% 🔋

That's not right.
Try again.





The flower is on the left side.
Press the right button.



If correct:

9:22 AM Fri Oct 6

43% 

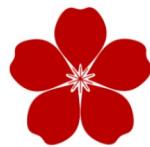


Great! That's right!

If incorrect:

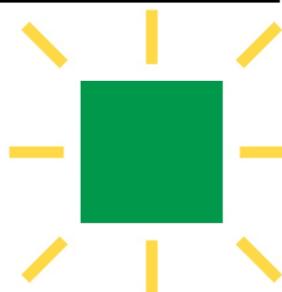
9:24 AM Fri Oct 6

43%



Oops! That's not right.

When you see a FLOWER,
press the button
on the OPPOSITE side.





Time to practice!

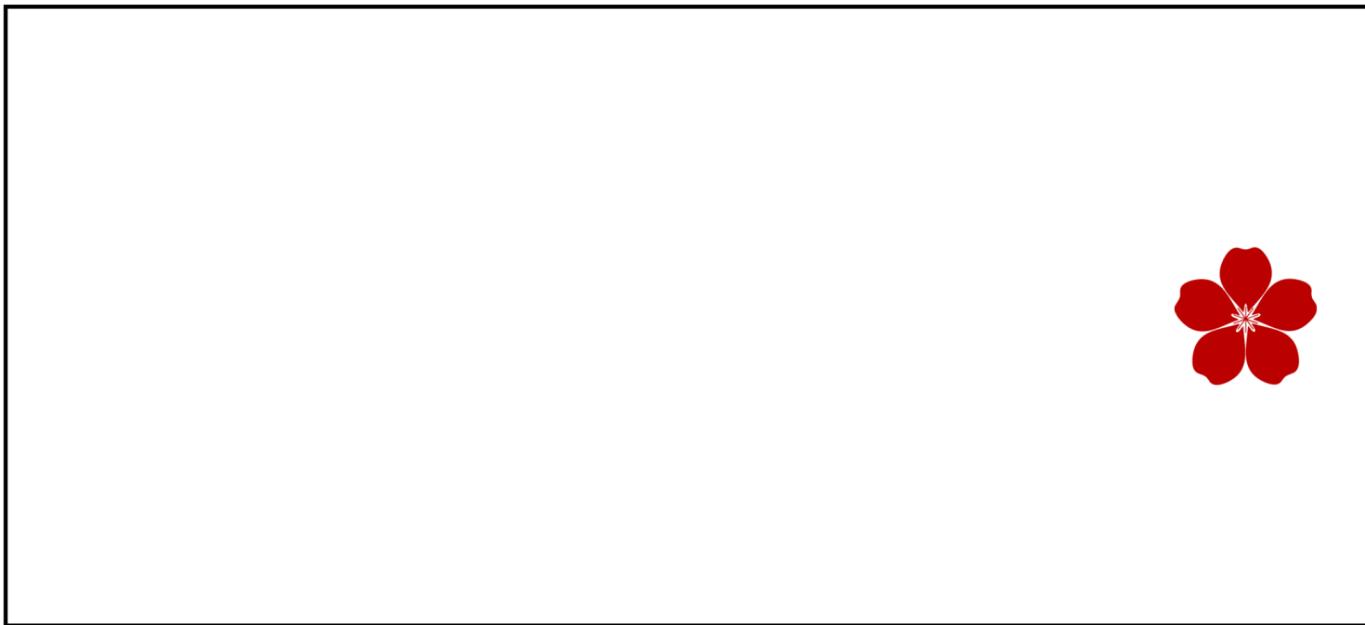
Go

Practice

- Our app allows the researcher to customize the number of practice trials.
- You can also allow the practice trials to end early (e.g., if participants get three practice trials correct in a row).

12:48 PM Fri Oct 6

50% 



If correct:

9:22 AM Fri Oct 6

43%



Great! That's right!

If incorrect:

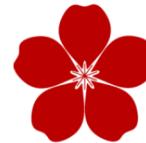
12:50 PM Fri Oct 6

49%



Oops! That's not right.

When you see a FLOWER,
press the button
on the OPPOSITE side.



This time the game will go faster.
It won't tell you if you are right or wrong.



Try to keep up!

Next



Try to answer
as fast as you can
without making mistakes.

If you make a mistake,
just keep going!

Next



Time to play!

Go

Test Trials

- Each trial consists of a fixation cross followed by the presentation of a flower on the left or right side of the screen.
- To maintain balance between right/left stimulus presentation and prevent long sequences, repetitive sequences using only one side, we grouped trials into sets of 4.
- Within each set, 2 trials are randomly assigned to each side.

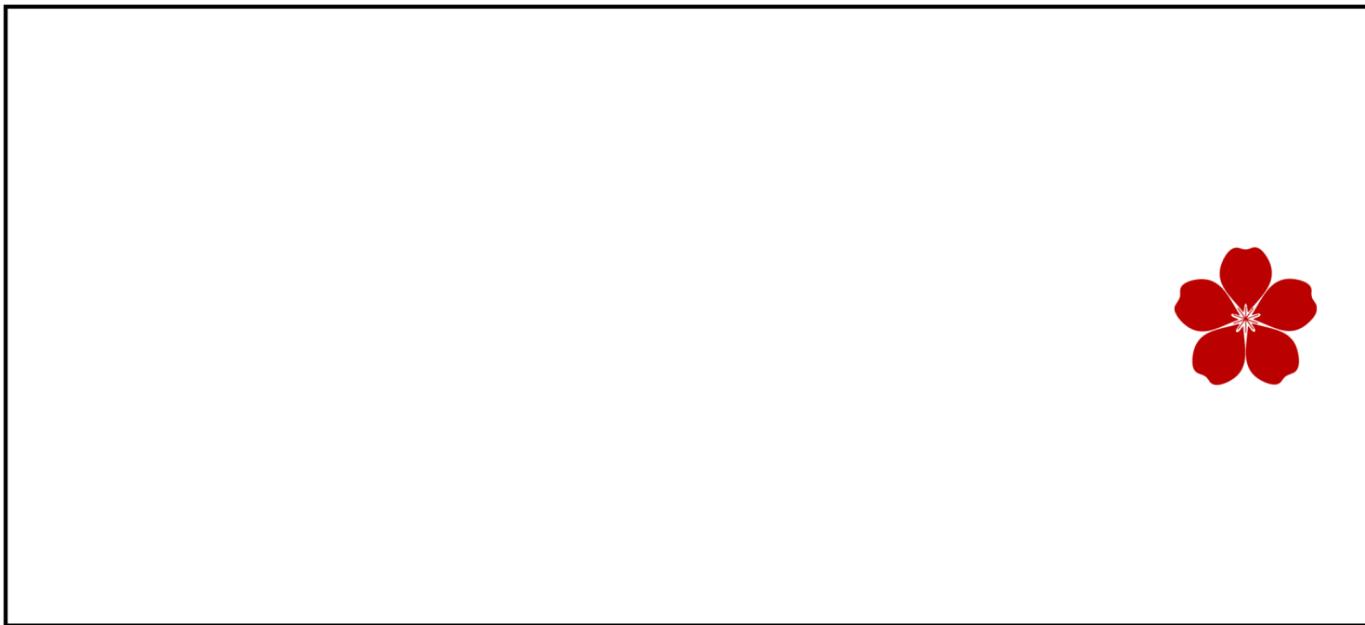
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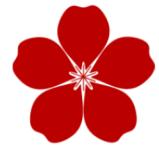
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Now, we're going
to play a game with
hearts and flowers.

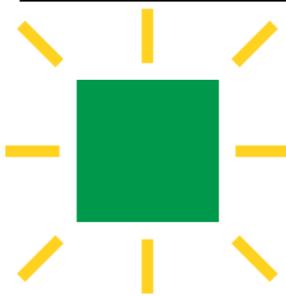
Next

Instructions

- Participants have a fixed set of instructional trials (regardless of performance).
- Participants cannot continue until they select the correct answer.



Remember!
When you see a HEART,
press the button
on the SAME side.



If correct:

9:22 AM Fri Oct 6

43% 



Great! That's right!

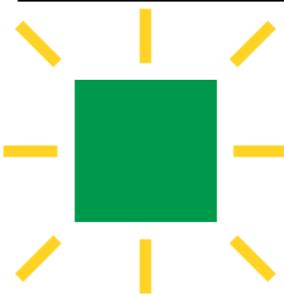
If incorrect:

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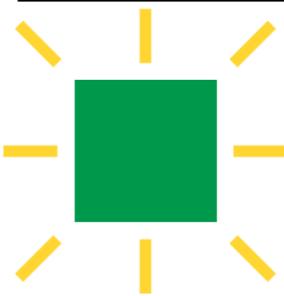
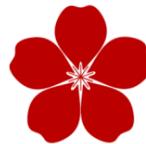
50%



That's not right.
Try again.



Remember!
When you see a FLOWER,
press the button
on the OPPOSITE side.



If correct:

9:22 AM Fri Oct 6

43% 



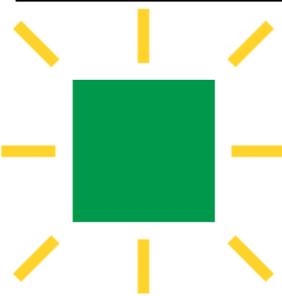
Great! That's right!

If incorrect:

12:48 PM Fri Oct 6

Wi-Fi 50% 🔋

That's not right.
Try again.





Time to practice!

Go

Practice

- Our app allows the researcher to customize the number of practice trials.
- You can also allow the practice trials to end early (e.g., if participants get three practice trials correct in a row).

Practice for the mixed block follows the same format as the hearts block and flowers block.

This time the game will go faster.
It won't tell you if you are right or wrong.



Try to keep up!

Next



Try to answer
as fast as you can
without making mistakes.

If you make a mistake,
just keep going!

Next



Time to play!

Go

Test Trials

- Each trial consists of a fixation cross followed by the presentation of a flower on the left or right side of the screen.
- To maintain balance between hearts/flowers and right/left stimulus presentation and prevent long sequences, repetitive sequences using only one side, we grouped trials into sets of 4.
- Within each set, each shape and side combination (heart left, heart right, flower left, flower right) is presented once in a randomized order.

Test trials for the mixed block follow the same format as the hearts block and flowers block.