

SuperLab Workbook

Exploring the impact of mood inducing images on participants ability to remember and identify a list of words.

In this practical, you are testing how being in a happy, sad, or neutral mood affects how well people recognise words. The key idea is that the images you show first (happy, sad, or neutral) can influence how the brain processes and remembers the words that appear before or after them. This kind of research sits within two big areas of psychology; how mood affects memory, and how emotion shapes the way we store information.

Understanding the Theory Behind Your Memory & Mood Task:

Mood-congruent memory:

Research has shown that people often remember information better when it matches the mood they are in. For example, if someone is in a sad mood, they might find it easier to notice and remember sad-related material. Early work by [Bower \(1981\)](#) explained this by saying mood works like a “node” in our memory system; if you activate one mood (e.g., sadness), you also activate related thoughts and memories, making them easier to retrieve.

Mood-dependent retrieval:

[Marshall and Beck \(1985\)](#) show how people remember things better if they are in the same mood during learning and testing (for example, sad during both). However, this effect is less reliable in recognition tasks like the one you are doing. Recognition (YES/NO decisions) is less affected by mood than free recall (writing down everything remembered).

What Previous Studies Found:

Hanson & Pettijohn (2014)

- Participants were put into happy, sad, or neutral moods.
- They then viewed emotional photos and later recalled them.
- They found: Sad mood = best memory and Happy mood = worst.
- Sad moods may narrow attention, helping memory; happy moods may broaden attention, reducing detail focus.
- This is similar to what you are testing because you will also use emotional pictures followed by a memory test.

Chepenik, Cornew, & Farah (2007)

- Prolonged sad mood made people especially good at remembering emotion-related information, but didn't affect all types of thinking.
- This shows mood effects can be specific, especially for emotional words or images.

Cahill & McGaugh (1998)

- Emotional arousal activates the amygdala, which helps the brain store memories more strongly.
- This is why emotional events are often remembered better.
- Even though your images are mild, the same process can still influence word memory before or after emotional pictures.

Why this matters in real life:

Learning how mood affects memory has several useful applications:

1. **Learning & revision.** Positive moods can broaden attention, which sometimes reduces memory for details. Negative moods can narrow attention, which sometimes increases memory for specific information. This helps us understand why we study better under certain emotional conditions.
2. **Eyewitness memory.** Emotional events can make people remember the main details very well but forget smaller details. Understanding this helps police and psychologists design fair and accurate interview methods.
3. **Mental health & wellbeing.** Therapies like Cognitive Behaviour Therapy benefit from understanding how mood shapes what we pay attention to and remember. Knowing that mood can bias memory helps psychologists support people more effectively.

Your Task: Create a study to test whether Mood impacts memory

Pick which mood you want to explore (either the 'Happy condition' or the 'Sad condition') and create a study via SuperLab to test this. You will be comparing your chosen condition to a control condition ('Neutral condition').

Materials:

1. Images:

- You will find these on Google Images (first look at the standardised images in the [international affective picture system](#) for guidance)
- Each participant will see 5 'Neutral' images and **EITHER** 5 'Happy' images or 5 'Sad' images
- Find these images before you start creating your SuperLab study

2. Memory recall words:

- Pick words from list A for the 'Neural' Condition and List B for the 'Mood' Condition (found in the appendix at the end of this workbook)
- You will need to create two sets of 10 words:
 - One set of 10 words will be presented during the 'Neutral' Condition
 - A different set of 10 words will be presented during the 'Mood' Condition
- Choose these before you start creating your SuperLab study

Procedure:

1. Participants will be tested individually; all aspects of the study will take place in an individual lab booth.
2. Participants will first be presented with an information sheet, and then a consent form. After signing the consent form, participants will complete the SuperLab task.
3. During the SuperLab task, participants will first be presented with a set of instructions, and then they will be shown 5 words (taken from the first set of 10 words) presented individually on the screen.
4. Participants will be shown the 5 neutral images.
5. Participants will be shown the full set of 10 words (including the 5 words previously shown), presented individually on the screen. Participants must indicate whether they had previously been shown this word or not (by pressing on keyboard key for yes and a different key for no).
6. Participants will be shown a second instruction screen, and then they will be shown 5 words (taken from the second set of 10 words) presented individually on the screen.
7. Participants will be shown the 5 Mood images.
8. Participants will be shown the full set of 10 words (including the 5 previously shown), presented individually on the screen. Again, participants must indicate whether they had previously been shown this word or not (by pressing the keys on the keyboard).
9. Participants will be verbally debriefed and handed a debrief form.

Step-by-step instructions:

1. Create new experiment:

- Open SuperLab 6
- Create a New Experiment
- Blank Experiment

2. Create reusable inter-stimulus events:

Create two Events you'll insert between stimuli:

- Fixation Cross:
 - Create a new Event
 - Event Type: 'Text' and type in a '+'
 - Change font size 72
 - Set to display for 500ms
- Blank Screen:
 - Create a new Event
 - Event Type: 'Text' and leave blank
 - Set to display for 500ms

2. Block 1: Instruction (Neutral phase)

- Create a new Block and name it Instructions1.
- Create a new Trial and name it Instructions1.
- Create a new Event and name it Instructions1.
- Event Type: 'Text'
 - Type in a clear set of instructions.
 - Space the text out nicely, so it is readable and easy to understand
- Set the 'Correct Response':
 - Click 'Edit Response' and then click 'New'
 - Call the response 'SPACEBAR' and add a space into 'The Following Key' box
- Input: 'After a correct response..'
- Link the Instruction Block, Trial and Event:
 - When the Block is highlighted, tick the corresponding Trial(s)
 - When the Trial is highlighted, tick the corresponding Event(s)

3. Block 2: Neutral Baseline Words (5 items)

- Create a new Block (e.g., Neutral baseline words)
- Create 5 new Trials (e.g., NW1 baseline, NW2 baseline...)
- Create 5 new Events (e.g., NW1 baseline, NW2 baseline...)
- Event Type: 'Text'
 - Type in first set of words
 - Change the settings within each Event to make the words presentable
- Display 3000ms each.
- Link the Blank Screen and Fixation Cross to each Trial
- Link the Instruction Block, Trials and Events.
- Randomise Block

4. Block 3: Neutral Images (5 items)

- Create a new Block (Neutral Images)
- Create 5 new Trials (e.g., NI1, NI2...)
- Create 5 new Events (e.g., NI1, NI2...)
- Event Type: Picture File. Select your saved image files
- Display: 5000ms each
- Link the Block, Trials and Events. Add Fixation Cross and Blank Screen
- Randomise Block

5. Block 4: Neutral Recognition Test (10 items)

- Build a Stimulus List with 10 words:
 - 5 "old" (the ones shown in Block 2),
 - 5 "new" (the other 5 from List A not yet shown)
- Create a new Block (e.g., Neutral Words)
- Create 10 new Trial (e.g., NW1, NW2...)
- Create 10 new Event (e.g., NW1, NW2...)
- Event Type: Text
 - Type in the 10 words within the 10 Events
 - Change the settings within each Event to make the words presentable
- Add new Correct Responses (same process as before):
 - Yes = s (see before)
 - No = k (not seen before)

- Input to 'After a correct response..' and select the 'Yes' and 'No' responses
- Link the Blank Screen and Fixation Cross to each Trial
- Link the Block, Trials and Events
- Randomise Block

6. Block 5: Instruction (Mood phase)

- Follow steps for Block 1
- Adapt wording for the mood you have chosen

7. Block 6: Mood Baseline Words (5 items)

- Follow steps for Block 2
- Add 5 words from List B.

8. Block 7: Mood Images (5 items)

- Follow steps for Block 3
- Add 5 images based on your chosen condition (Happy or Sad)

9. Block 8: Mood Recognition Test (10 items)

- Follow steps for Block 4
- Add your 5 original words and 5 new words

10. Block 9: Thank you page

- Create a new Block (End)
- Create a new Trial (End)
- Create a new Event (End)
- Event Type: Text and type in your end message
- Link the Instruction Block, Trial and Event

In addition to the SuperLab task, you will be required to create your study materials (template of these are available via the Module Moodle page). These include:

1. Study Information Sheet
2. Consent Form
3. Debrief Sheet
4. Study Protocol

Once completed, the study materials and SuperLab programme must be emailed to katie.sullivan@uwtsd.ac.uk and kate.williams@uwtsd.ac.uk

Your study materials will be printed and provided to you prior to running your study with a participant.

Word list A (Neutral Condition):

1. Table
2. Window
3. Bottle
4. Pencil
5. Jacket
6. River
7. Garden
8. Laptop
9. Cupboard
10. Helmet
11. Carpet
12. Cushion
13. Bucket
14. Calendar
15. Candle
16. Wallet
17. Mirror
18. Towel
19. Passport
20. Backpack

Word List B (Mood Condition):

1. Sandwich
2. Notebook
3. Train
4. Curtain
5. Teapot
6. Rucksack
7. Ladder
8. Envelope
9. Keyring
10. Windowpane
11. Hammer
12. Doormat
13. Cables
14. Stapler
15. Blanket
16. Tennis ball
17. Thermos
18. Lantern
19. Mug
20. Headphones