

## Module:

Psychological Foundations of Mental Health

Week 3:

Introduction to emotion and emotional processing



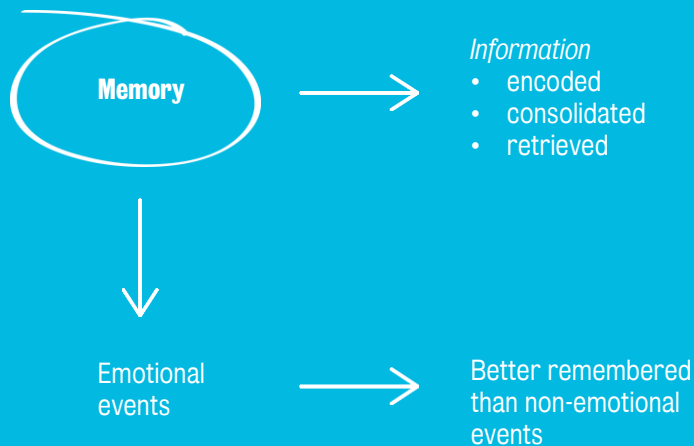
Dr Jennifer Lau

### Topic 2:

**Emotion processing: bottom-up effects  
of emotions on cognitive processes**

Part 3 of 3

## The effects of emotions on memory



Johnson, Kim & Risse (1985)

## Flashbulb memories

Flashbulb memories are memories of salient events which can be described in great detail.

Where they were

What they were doing

Who they were with

*However not always accurate*

## Remembering affective materials in the lab

Memories of dramatic events are not always accurate

Post-event analysis can be confused with experience

### Lab experiment

#### Findings:

Negative pictures are more accurately remembered than positive or neutral pictures and arousing pictures, both negative and positive are remembered accurately.

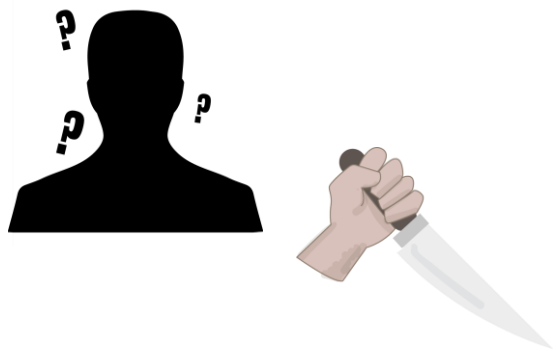


Ochsner (2000)

## Emotions can narrow the focus of attention

### How do emotions affect memories?

- Stress hormones affect memory retention
- Emotional arousal can narrow attention
- Participants spend a greater deal of attention on the weapon than the face of the offender



'Weapon focus' effect

## Memories formed under extreme stress (1)

For some individuals stress can cause over generalised memories

Known as 'over general autobiographical memory'

Mainly a trait found in people with psychiatric conditions following a stressful life event

Producing over general memories could be:

Structural memory deficit

or

Adaptive strategy for managing extreme emotional distress

## Memories formed under extreme stress (2)

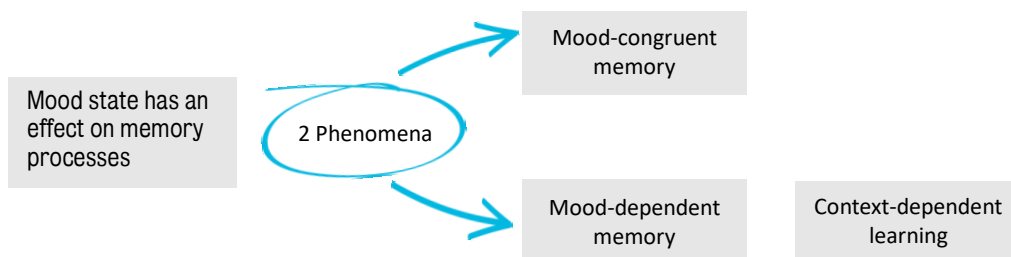
Memories formed under stress

Intrusive involuntary images

Extremely vivid & detailed

Prominent in many mental health conditions

## Mood can also affect memory: mood-congruent memory and mood-dependent memory



Exercise: Have a go at designing an experimental study to test the presence of **mood-dependent memory OR mood-congruent memory**. You can use some of the methods we discussed in earlier sections in emotion research to assess these.

*Click for model answer*

## Model answer

**Mood-dependency**

To test mood-dependency, remember that mood must be the same at retrieval and encoding, but that the content of the memory doesn't have to be affective. To test the effect of mood-dependency on memory we might first induce a negative mood in participants by presenting them with a series of aversive and upsetting images (perhaps from the international affective picture system). Then participants might be asked to learn a list of words. After learning, and perhaps the following day, participants will then either be induced into a negative mood again, this time using other negative pictures, or, they will be induced into a positive mood with positive pictures. Participants will then be asked to recall the words. We would expect that participants in the negative mood at recall should show significantly enhanced recall of the word list from day one relative to participants in the positive condition.

**Mood-congruency**

We could also test mood-congruency within this paradigm. After recall of the word list, we could ask participants to recall the negative images that were presented during the initial mood induction. We could, for example, ask them how certain they are that they've seen each image before. We would expect that participants induced into a negative mood at recall would remember a greater number of these negative images relative to people induced into a positive mood.

Click [Next](#) to continue

## Individual differences in memory biases and depression

- Mood difficulties will have impact on memory formation
- People with depression often can recall negative material more frequently
- Memory biases may play a role in maintaining depression

**Implicit memory task:**

ENCODING: Rate how much this word applies to you: foolish, clever, peaceful, failure, etc.

TEST: Please complete these word fragments with the missing word as quick as you can:

**f--li-h**

## Conclusion

### Emotions affect:

- Attention
- Learning
- Memory

### In the next topic we will learn:

How cognitive processes  
affect emotional experience

## References

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