



Dr Charlotte Russell

Module:**Psychological Foundations of Mental Health**

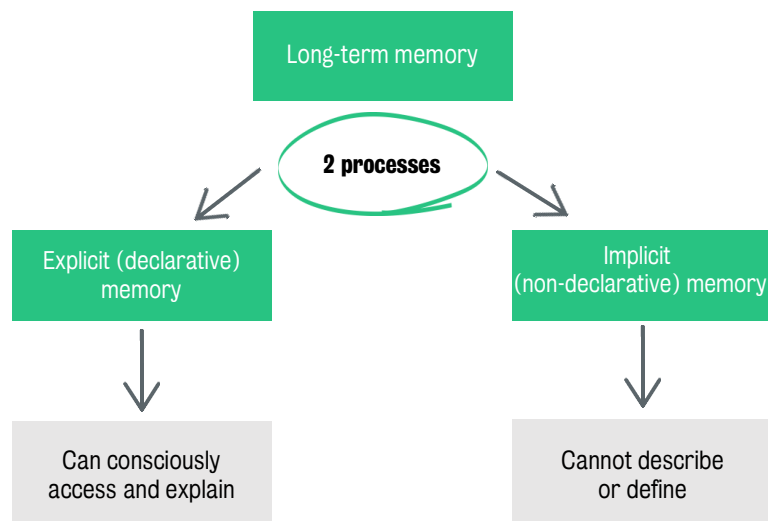
Week 2:

Cognitive Processes and Representations

Topic 3:**Memory**

Part 2 of 2

Implicit/explicit memory distinction in long-term memory



Amnesia

Specific problem
in long-term
memory



**Retrograde
amnesia**

=

Loss of memory
before the event
that caused
amnesia

**Anterograde
amnesia**

=

Loss of ability to
create new
memories

*Which film
best depicts
amnesia?*



H.M. - Implicit/explicit memory distinction in LTM

Distinction between
Implicit + *Explicit*
long-term memory

H.M.

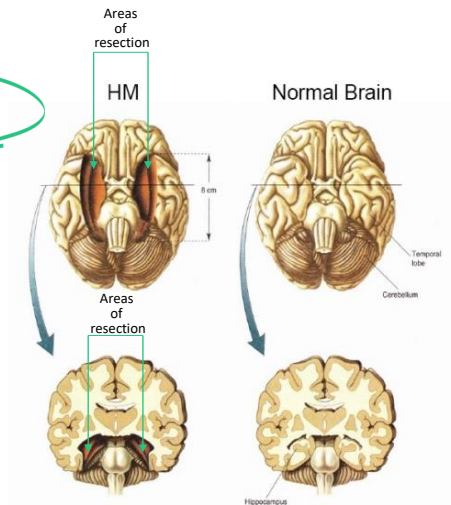


Anterograde
amnesia

Able to remember
people and events
from before the
operation

Mild retrograde
amnesia

No new memories



Scoville & Milner (1957)

Week 2 Cognitive Processes & Representations

Topic 3: Memory 5 of 18

H.M.

HM's **working** memory
was in the **normal range**.



HM's **long term**
memory could not be
improved.

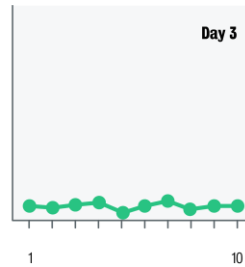
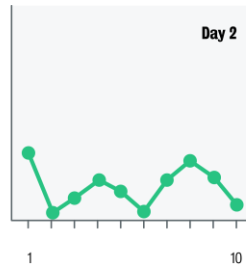
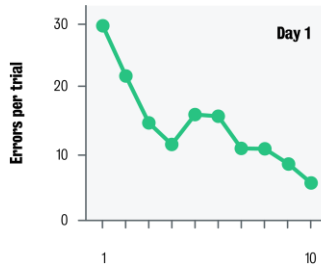
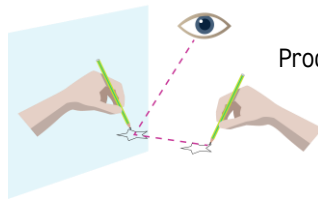
Scoville & Milner (1957)

Week 2 Cognitive Processes & Representations

Topic 3: Memory 6 of 18

H.M.: Formal testing (1)

Mirror drawing task



No new explicit
memories

But retained brand
new procedural
memories

Scoville & Milner (1957)

Week 2 Cognitive Processes & Representations

Topic 3: Memory 7 of 18

H.M.: Formal testing (2)

1



2



3



4



1



2



3



4

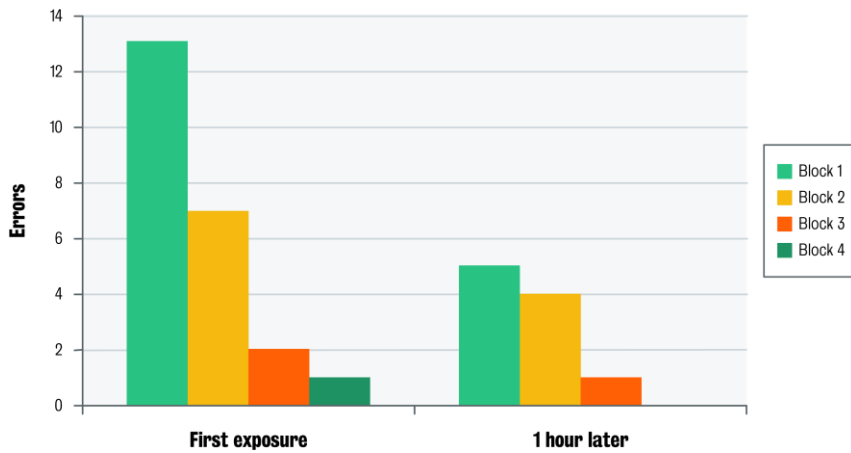


Scoville & Milner (1957)

Week 2 Cognitive Processes & Representations

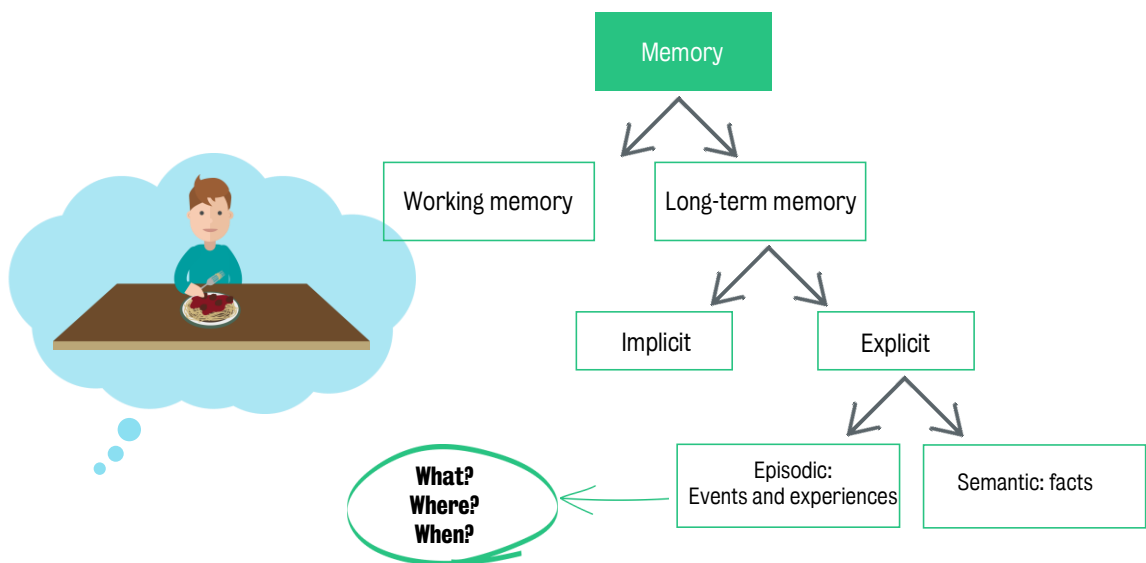
Topic 3: Memory 8 of 18

Results: Fragmented pictures

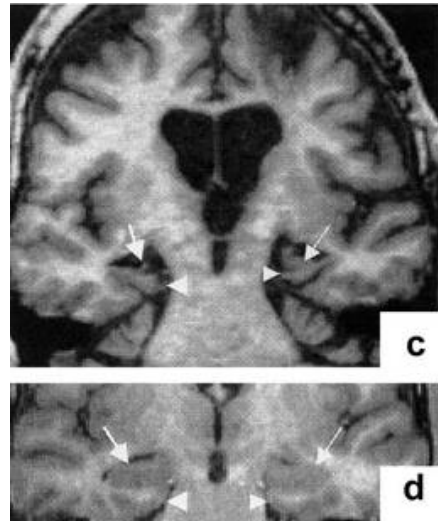
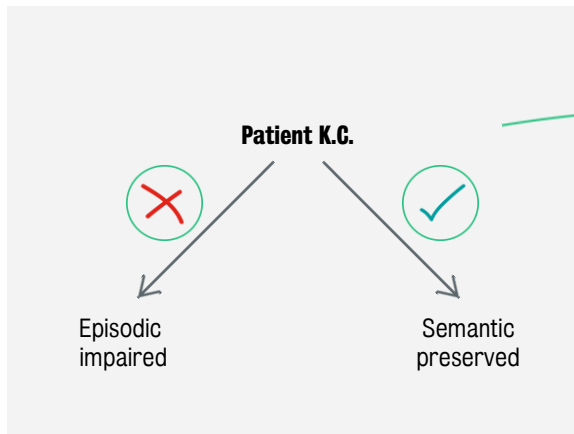


H.M. better able to identify figures on second occasion without remembering having done the task

Episodic and Semantic Memory (1)

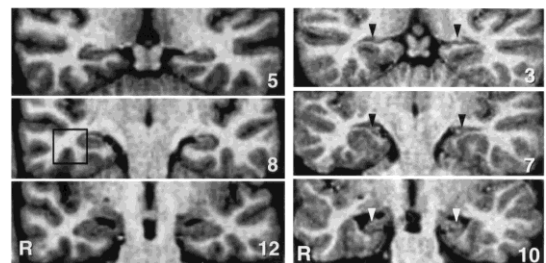
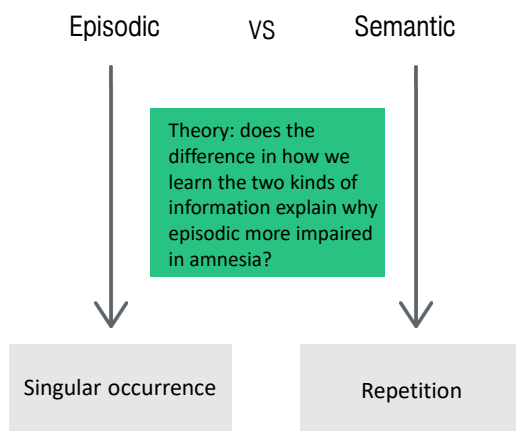


Episodic and Semantic Memory (2)



Tulving (2002)

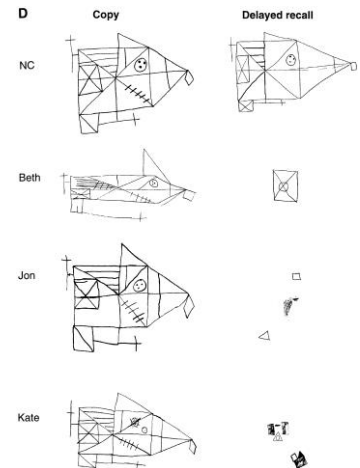
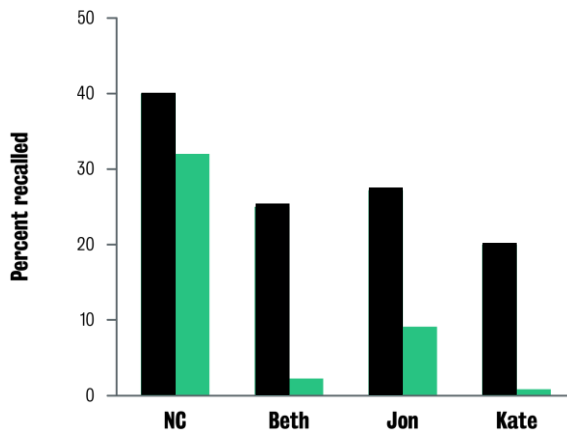
Episodic and Semantic Memory (3)



Vargha-Khadem (1997)

Vargha-Khadem et al (1997)

Episodic and Semantic Memory (4)



Rey-Osterreith Complex Figure Test

Vargha-Khadem et al (1997)

Episodic and Semantic Memory (5)

Semantic tasks

manifest. §For example: Q: Which country in the world has the largest population? Beth: China, Q: Who was Martin Luther King? Jon: An American; fought for black rights; black rights leader in the 1970s; got assassinated. Q: What is the Koran? Jon: Holy Book of Moslems. Q: What is the capital of Italy? Kate: Rome. §For example: Q: What does "boast" mean? Beth: If someone has done something, they boast about it; they show off. Q: What is a "sanctuary"? Jon: Safe haven; place of safety everyone can go to. Q: What does "encumber" mean? Jon: When you try and burden them with lots of things. Q: What does "obstruct" mean? Kate: To get in the way of something. ¶For example: Q: Why is it important for the government to make sure that meat is inspected before it is sold? Beth: Because it could be not clean and people could get a disease and die. Q: What does this saying mean? "One swallow does not make a summer." Jon: Just because you see a little bit of evidence toward something, unless you've got more evidence it's not really proof that you're right. Q: Why do some people prefer to borrow money from a bank rather than from a friend? Kate: Because they can pay back the money in their own time; a friend may pester them.

Vargha-Khadem et al (1997)

Episodic memory is a reconstructive process (1)

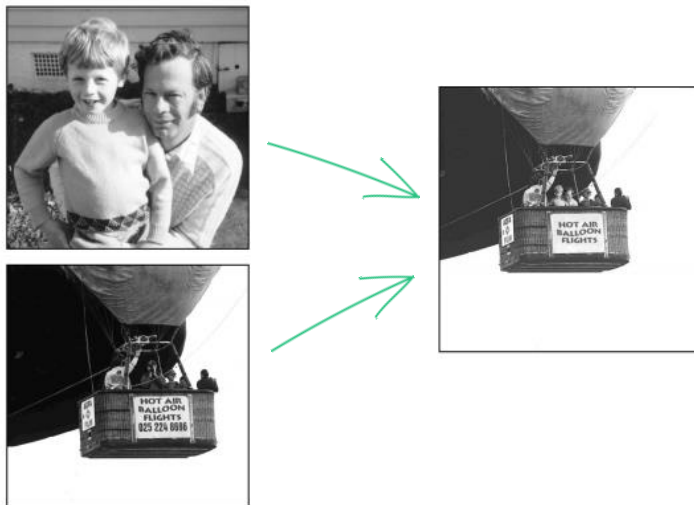
Episodic memory
is linked to sense
of self

Loss of episodic
memory is among
the 1st symptoms
of dementia

Remembering is a
reconstructive
process



Episodic memory is a reconstructive process (2)



Summary

- Memory
- Working memory
- Long-term memory
- Explicit/implicit
- Episodic/semantic
- Reconstructive nature of episodic memory
- This feature can be used to positive effect in therapy

References

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