Memory

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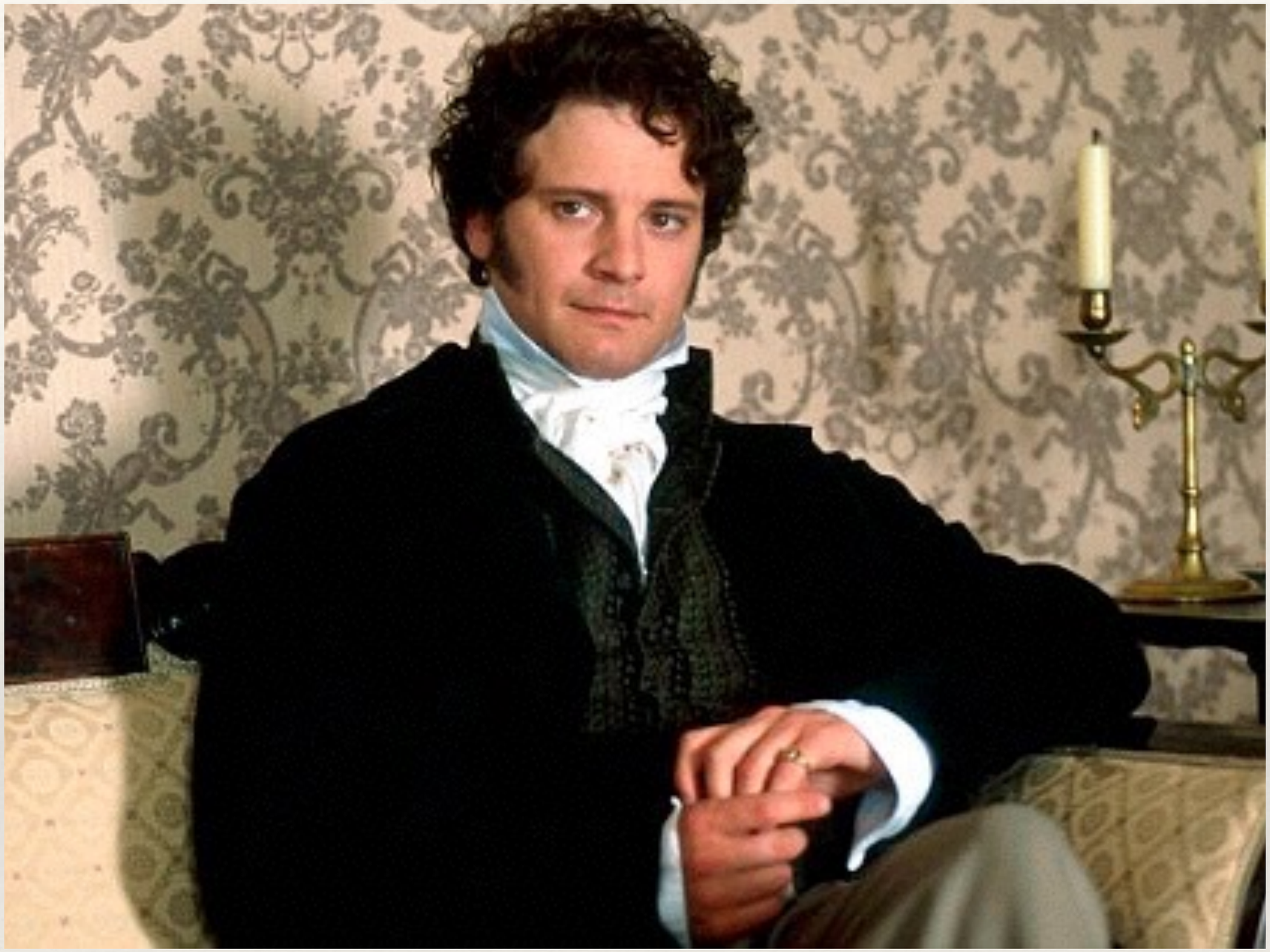
Relevant Learning Outcomes

- Understand:
  - What happens when a person remembers something
  - What makes something memorable
- Remember:
  - Short-term versus working versus long-term memory
  - Episodic versus semantic versus procedural memory
  - prospective versus retrospective memory
  - recall versus recognition
- Apply:
  - Analyse what people need to remember in order to interact with / use a technology

Instruction

Shake your head twice after seeing the slide entitled “Procedural”



Memorable Moments:
Colin Firth as Mr Darcy in the BBC's adaptation of Jane Austen's Pride and Prejudice

What Do You Remember?

Facts, Opinions, Word Meanings → What you know; DECLARATIVE

Events → What you know; DECLARATIVE

Procedures → What you know how to do; PROCEDURAL

Declarative - Semantic

Facts, Opinions, Word Meanings

Colin Firth is an actor.
Colin Firth is a good actor.
An actor is a person
  who takes part in a dramatic performance.
I can find information on Colin Firth on Wikipedia.

semantic memory

general knowledge about the world, not tied to a specific experience

Recall vs Recognition

Recall:

Who played Mr Darcy in 1995 BBC Pride and Prejudice? _____

Recognition:

Who played Mr Darcy in 1995 BBC Pride and Prejudice?

- Daniel Ratcliffe
- Colin Firth
- Matthew MacFadyen
- Benedict Cumberbatch

Cues:

- has won an Oscar
- starred in “The King’s Speech”

Recall vs Recognition

Recall (often fast):

Information is retrieved from memory even though it is not physically present in the environment.

Recognition (often slow, requires scanning the environment):

Information that is present in the environment is compared to information that is stored in memory. When a sufficiently close association is found, recognition occurs.

Cues associated with the correct answer can help both recall and recognition.

Declarative - Episodic

Events

when I sat at the computer in my office
and watched the Lake Scene from Pride and Prejudice
on YouTube with the sound off

episodic memory

something that happened to me at a specific place and time

Experiencing an Event

- Percepts (acoustic, visual, kinaesthetic / tactile, olfactory) are processed and enter working memory
- **working memory** is a system for storing and manipulating information as it comes in. It is updated rapidly.
  - **short-term memory** is a process within working memory for storing small amounts of information for a very short amount of time
- Relevant information from **long-term memory** (episodic / semantic) is activated so that it can be accessed during processing

Procedural

Procedures

how to type “Colin Firth lake scene”
how to click on an icon
key combinations for cut and paste

procedural memory

how to do things, in particular manual procedures
mostly unconscious, highly practiced

So, how are we doing?

- Do you remember who Colin Firth is?
- Did you remember to shake your head twice?

Prospective vs Retrospective Memory

- Do you remember who Colin Firth is?
  - **retrospective memory** for something you know, that you have recently learned about, or that you have been exposed to
- Did you remember to shake your head twice?
  - **prospective memory** is remembering to do something. Cues can be linked to time or events

Forgetting is Human and Necessary

Think back to the photo on Slide 4.

- What was the actor wearing?
- What was the actor's hairstyle?
- What was the actor sitting on?
- Were there one or two candles on the side table?

Does it matter whether you remembered?

Enough Colin Firth! Where's the Technology?

- How did you access this slide deck?
- How did the particular technology that Colin's photo was embedded in affect your perception of it?
- How do you normally watch films and TV?
- Where do you get information about actors and their work?
- How come you know what Colin Firth looks like although you've probably never met him?

Linking Out

- more about long-term memory and forgetting in the slide deck about learning
- more about working memory and processing in the slide deck about attention and decision making