Shanks et al. (2010) showed participants pictures from 5 categories (fruit, animals etc.), then showed them labels for the objects they had seen and asked them to imagine them. Then showed them pictures again. Unbeknown to them, several imagined labels had not been shown in the first phase. Participants thought they had seen photos of the scenes they had imagined moments ago.

Loftus et al. (1995) Lost in the Mall Asked participants if they remembered being lost in a mall. Then experimenters asked leading questions about being lost in a mall and told them a story about them being lost in the mall. After repetition of this story,people began to remember being lost in the mall: **false memories.**

McGeoch 3-Factor Theory (1932) Emphasis on retrieval rather than storage: found that memory traces do not just decay with the passage of time, they are subject to interferences – retroactive (learning B hinders recall for A) and proactive (learning A hinders recall for B) (Underwood et al. 1950s). This suggested that retrieval failures occur because wrong memory is retrieved. Memories **compete,** are subject to **context dependence** and **part set cueing.**

3 Factors: Response Competition: Two or more items are potential responses to the same memory query. **Altered Context:** Different context increases forgetting. **Part Set Cueing:** Access to a subset of items (e.g. fruit) does not help recall of the others (e.g. apple, pear, pineapple etc.)

Part-Set Cueing Slamencka (1968): People studied lists of words from semantic categories. Participants were given categories as prompts for recall. This impaired recall.

Accessibility vs. Availability: Tulving et al. (1966) argued that on memory that is available is not always accessible. He asked participants to perform free recall and cued recall task and found better performance on cued recall.

Most work was about forgetting, not errors and illusions! Until, Charles **Bartlett.**

Implanting Memories

Reconstructive Memory (Retrieval)

Schema Theory:
A schema is organised knowledge structures stored in memory that is used to guide comprehension. There are four principles of schematic processing.

Memory Illusions
"Remembering events one has witnessed or experienced rests on a process of mental construction that tends to build in **errors and outright fabrications"**: Bartlett.

War of the Ghosts (Bartlett) He hypothesised that the story doesn't fit in to the schema of western people. People therefore omit and change information to suit schemas or expectancies. This is an example of **cultural differences** in memory.

Schematised Remembering this is somewhat beneficial as it allows for efficient storage of information that would otherwise require a lot of space. **However,** this is at the expense of accuracy.

Four Reconstructive Errors: Omissions, Additions, Linkages (adding reasons) **and Transformations** (e.g. unfamiliar names changed to familiar names)**.**

1) Integration

2) Selection (Anderson et al. 1979) Participants read story about house. Either asked to take perspective of burglar or home buyer. Home buyers remembered leaky roof whereas burglars remembered colour TV. When asked to change perspectives, they were able to recall previously unrecalled info. (Tulving et al. Availability vs. Accessibility)

3) Interpretation (Loftus & Palmer, 1974): Misinformation effect: Participants view car accident and are given one of 5 questions using different verbs. Participants speed estimates ranged from 40 (smashed) to 31 (contacted). This had influence on speed estimate and understanding of broken glass.

4) Abstraction (Barclay "Turtle Experiment" et al. 1972) Participants either told turtles were on a log or beside a log. They tended to remember the fish swimming underneath the log rather than underneath the turtles.

This can be explained by retroactive interference (McGeoch, Underwood et al.)

Situation Models: People develop situation models when interpreting discourse. Similar models can become confused when discourse is subtly different.