Used independent measures design → each participant only experienced one of five conditions
After watching the films → asked to describe what happened as if they were witnesses
also asked specific questions such as how fast the cars were going when they smashed/ collided/ bumped/ hit/ contacted each other

Results
- the estimated speed → affected by the verb used
- “smashed” condition → reported the highest speed estimate

2nd experiment
- 150 participants were shown a one-minute film → featured a car driving through the countryside followed by 4 seconds of a multiple traffic accident
- Later on:
  1. 50 of them were asked → the speed of the cars when they → hit each other
  2. remaining 50 participants → not asked a question (control group)
- One week later → asked if they saw any broken glass → actually no broken glass on the original film

Results
- smashed together → more likely to report seeing broken glass

Linkage
- The IV was the leading question asked and DV was the estimation of speed of the cars
- Results showed → participants in the “smashed” condition of both experiments estimated the highest speed → indicates a relationship between the verb used in the questions and the estimated speed of the cars

Conclusion
- Experiments → in addition to manipulating IV and DV → conducted in a controlled environment → strict control of the extraneous variables → important to allow researchers to test how cognitive processes are affected by different factors
- Standardized instructions & procedures → easier to replicate → higher test-retest reliability
- Some methodological concerns → some degree of how ecological validity due to artificiality → hard to generalize to real life
- Still highly regarded → if cognitive processes are more or less similar in real life → this argument is not refuted → objectivity → researcher bias and personal opinions are less likely to affect the results of the study

Another research method used → Interviews
- Useful in obtaining in-depth information about personal experiences or giving an account of what has happened in a situation
- One type → Semi-structured
  - interview process is standardized → still allows flexibility → a combination of closed and open-ended questions
  - often informal and conversational in nature

Interviews used in → Yuille & Cutshall (1986)
- whether leading questions would affect memory of eyewitness at a real crime scene
- crime scene → Vancouver
- A thief entered a gun shop → tied up the owner before stealing money & guns from the shop
- The owner freed himself → thinking that the thief had escaped → went outside the shop
- The thief was still there → shot him twice
- Police had been called and there was gunfire → the thief was eventually killed.
- 13 of the 21 eyewitnesses were then interviewed by the researcher 4 months after the event
  - gave their account of the incident → then asked two leading questions
  - Half of the group → saw a broken headlight on the getaway car
  - other half → saw a yellow panel on the car (the panel was actually blue)
  - asked to rate their stress on the day of the event on a seven-point scale

Results
- participants did not make errors as a result of the leading questions
- Interviews → somehow reliable → explains why they highly regarded in studying
experiencing more specific emotions require secondary appraisal to provide information about the individual’s coping options in a situation

- secondary appraisal → 3 components
  - problem-focused
  - emotion-focused coping
  - future expectancy

Smith and Lazarus (1993) → emotion experienced by an individual in each situation depends on the specific appraisal components activated by the situation

- presented scenarios to their participants and instructed them to identify with the central character
- In one scenario → central character had performed poorly in an important course → he appraised the situation
  - Other-accountability → having him put the blame on the unhelpful teaching assistants
  - Self-accountability → having him argue that he made a lot of mistakes
  - A low emotion-focused coping potential → having him think that there was a great danger he would finish with a poor academic record
  - Low future expectancy → impossible to succeed with his chosen academic path

- Results
  - appraisal manipulations → predicted effects on the emotional states reported by participants
  - Example:
    - other-accountability rather than self-accountability → anger more common
    - self-accountability rather than other-accountability → guilt more common

- Evaluation
  - other-accountability linked with anger + self-accountability linked with guilt → supports appraisal theory → specific appraisal is related to specific emotions
  - Focused too much on the structure of appraisal rather than the processes involved
  - Did not distinguish between conscious and unconscious levels of appraisal

Öhman (2000) → show that appraisals may occur automatically outside conscious awareness & take place in unconscious condition

- presented pictures of spiders or snakes to participants who feared spiders/ snakes/ no fears of either
  - 1st condition → presentation of the stimuli at durations that enabled the participants to consciously recognize them
  - 2nd condition → pictures were shown for 30 milliseconds and followed by a neutral stimulus, so that participants would not be aware of the stimuli content presented

- Results
  - Phobic participants → nearly identical physiological responses (increased sweat gland activity) to pictures of their phobic animals regardless of whether they had consciously seen the spiders or snakes presented

- Evaluation
  - Appraisals can occur at unconscious levels
  - Provided a clearer explanation of the strong link between the interaction between biological and cognitive factors
  - Shows that appraisals can occur at unconscious levels → which Lazarus’s appraisal theory did not account for → provided a clearer explanation of the strong link between the interaction between biological and cognitive factors

- Conclusion
  - Two theories developed → showed that cognitive and biological factors are both essential in emotional not be experienced in the absence of either factor
  - Should also consider the influence of social factors in creating emotion → full picture of interaction
  - Could be applied to abnormal field of psychology → how damage in biological systems lead to mental disorders
Studies generally support the identification of two determinants of FBM: event importance and emotionality (Williams et al., 2008).

Stimulates research in abnormal psychology → how emotion causes mental disorders.

Holistic approach required → cultural & gender differences → to further support the theory of FBM.