

Memory

Eyewitness Testimony - Anxiety Evaluation



tutor2u Full Lesson PowerPoint

Jenness (1932)

- **Jenness (1932)** was one of the first psychologists to study conformity. His experiment used an **ambiguous situation** involving a glass bottle filled with beans. He asked participants individually to estimate how many beans the bottle contained.
- Jenness then put the group in a room with the bottle, and asked them to provide a group estimate through discussion.
- **Question: What do you think Jenness (1932) found?**
- **Task: Answer questions 1 and 2 on the handout provided.**



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Full Lesson PowerPoint Key

- **Green = Key Word or Researcher**
- **Blue = Question / Discussion**
- **Purple = Task / Activity**

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Eyewitness Testimony

Lesson Objectives:

- To **apply** three evaluation points (one methodological, one sample and one ethical) to psychological research.
- To examine evidence that contradicts **Johnson & Scott's** results and draw a conclusion on the effect of anxiety on the reliability EWT.
 - **Yuille and Cutshall (1986)**
 - **Riniolo et al. (2005)**

Eyewitness Testimony

- Question: What are the three factors that affect the **reliability** of EWT? *Think back to last lesson.*

Three Factors:

- 1 Anxiety
- 2 Misleading Information
- 3 Post-Event Discussion



Eyewitness Testimony

- When evaluating research, you can often consider three key issues, including:
 - **Methodological Issues**
 - **Sampling Issues**
 - **Ethical Issues**



- Last lesson, we considered an ethical issue with Johnson & Scott's research.
- Question: Which **ethical issue** did we consider last lesson?

Deception

Deception

Point	One issue with Johnson & Scott's study is that they deceived their participants.
Evidence / Example	The participants were led to believe that they were sitting in the waiting room waiting for the experiment to begin, when in fact that was part of the real experiment.
Counter-Argument	However, it was necessary for Johnson & Scott to deceive the participants in order to reduce demand characteristics and obtain valid results . Furthermore, Johnson & Scott would have debriefed their participants after the experiment, therefore justifying their use of deception.
Explain	<p>This matters because some of the participants may have not agreed to take part in an experiment, especially if they were aware that they may have been exposed to a knife, as this could have caused high levels of stress and anxiety.</p> <p>However, as outlined above, the deception was necessary and the participants were unlikely to have experienced extreme anxiety, as they were not put in any real harm or danger.</p>

Eyewitness Testimony

- **Ethical issues** consider whether or not the psychologist(s) adhered to the code of ethics and why this may have been an issue.
- **Methodological issues** consider whether or not the method (procedure) of the study may have affected the results. For example:
 - Were the tasks that the participants had to perform realistic?
 - Was the study carried out in a natural or artificial environment?
- **Sampling issues** consider whether or not the sample used in the study can be generalised to other groups of people.

Eyewitness Testimony

- Task: Refer back to your handout from last lesson. As a group, consider whether or not there were any methodological and sampling issues with Johnson & Scott's study. Justify your answers on a mini-whiteboard.



Will the presence of a weapon make someone a better eyewitness? Or worse?

This study was carried out to investigate the effect of a weapon on eyewitness testimony accuracy. It had been hypothesised that heightened anxiety would increase the accuracy of eyewitness testimony. This was investigated in a lab study.

Participants were invited to take part in a (fake) psychological study but whilst they were sat in a waiting room, the real experiment began.

- Group 1 overheard a heated argument in the next room, a crash of equipment and then a man emerged holding a paperknife.
- Group 2 overheard a disagreement about lab equipment in the next room, and then a man left holding a pen.

Each participant was then asked to identify the man they had seen emerge from the room from a selection of 50 photos.

It was found that participants in the high anxiety group (Group 1) were significantly less accurate in selecting the man from the photos, in comparison with the control group (Group 2). From this study, it was proposed that anxiety decreased the effectiveness of eyewitness testimony and that participants were instead focusing on the knife, rather than the man's face. This has been deemed the 'weapon focus' phenomenon.

Eyewitness Testimony

Methodological

- Laboratory study
 - Demand characteristics
- Participants shown 50 photos
 - A real-life line up would be less

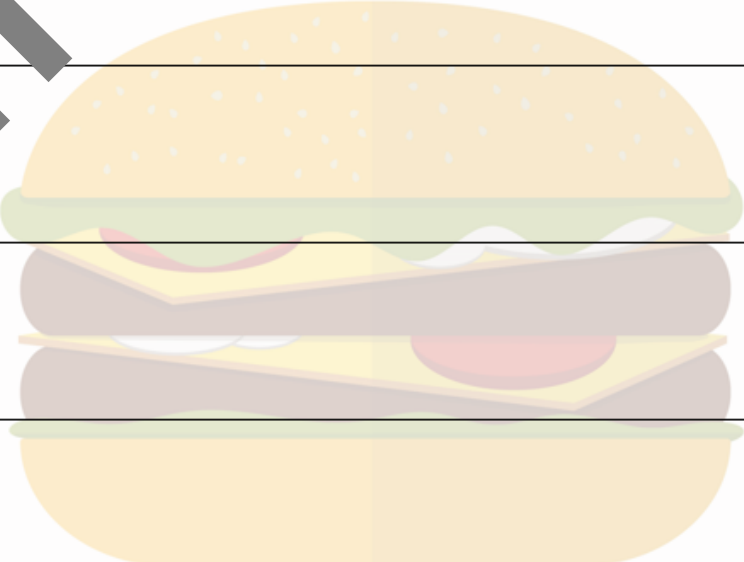
Sampling

- There are no details of the sample. However, if we assume it is an American sample, there is the issue of **ethnocentrism**.

Eyewitness Testimony

- Task: Now that we have considered the methodological and ethical issues with Johnson and Scott's study, write one burger (Point, Evidence, Explain) paragraph for one of the methodological issues on your handout.
- *Extension: For this evaluation point, could you add a counter-argument to enhance your evaluation point even further.*

Point	Evidence/Example	I&D or Counter-Argument	Explain



Eyewitness Testimony

Point	One issue with Johnson and Scott's research is that the experiment was carried out in a laboratory .
Evidence or Example	Although the participants were in a waiting room, the participants knew that they were taking part in an experiment and this may have led to demand characteristics , where they might have suspected that 'something' could happen at any moment.
Explain	This matters because the demand characteristics could have affected the validity of the findings and we cannot be certain that the findings were caused by anxiety, as the participants may have been more anxious/expectant than usual.

Eyewitness Testimony

“If you are involved in a robbery or a victim of a mugging where weapons are involved, you are very anxious and focus solely on the weapon and thus become a less accurate eye witness”

Loftus (1979)

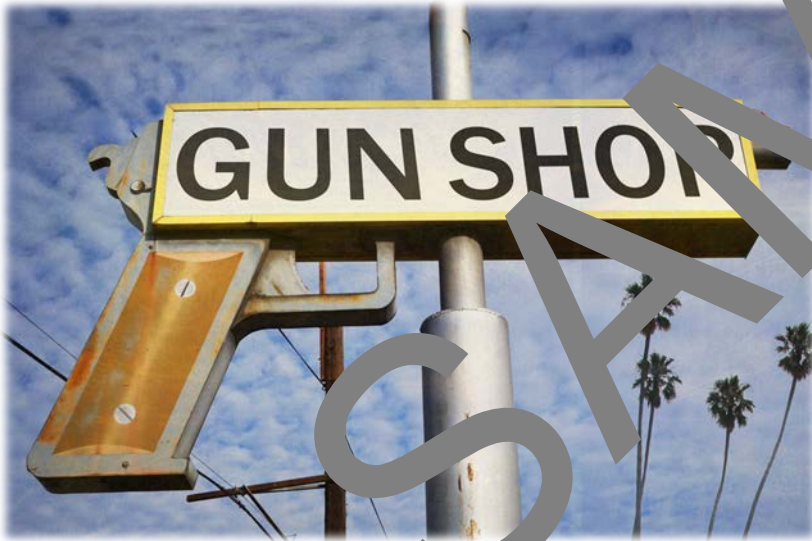
- Question: Do YOU agree with this statement? Yes/No and most importantly, why?



Eyewitness Testimony

- Unfortunately, for Johnson & Scott, there is a wealth of evidence that contradicts their findings.

Yuille & Cutshall (1986)



Riniolo et al., (2003)



Eyewitness Testimony

- Task: In pairs, read one of the two studies, Yuille & Cutshall or Riniolo et al. Then answer the question underneath your study.
- Once you have both read your own study and answered the question, explain the findings of your study to your partner and explain why this study refutes the findings of Johnson & Scott's research.

Yuille & Cutshall (1986)

"21 witnesses observed a shooting incident in which 1 person was killed and a 2nd seriously wounded. The incident took place on a major thoroughfare in mid-afternoon. All of the witnesses were interviewed by the investigating police, and 13 witnesses (aged 15–32 years) agreed to a research interview 4–5 months after the event. In the present study, the eyewitness accounts provided in both the police and research interviews were analyzed. The witnesses were highly accurate in their accounts, and there was little change in amount or accuracy of recall over 5 months. The eyewitnesses resisted leading questions, and their stress levels at the time of the event appeared to have no negative effects on subsequent memory. The results differ from the pattern of many laboratory studies of eyewitness memory (i.e., in the degree to which the witnesses in the present study were actively involved in the event) and point to the need for field research of this type to evaluate the generalizability of laboratory experiments."

Yuille & Cutshall (1986, page 89)

Why did Yuille & Cutshall (1986) find? How does these results refute the findings of Johnson & Scott?

Riniolo et al., (2003)

"A handful of real-life studies demonstrate that most eyewitnesses accurately recall central details (i.e., the gist of what happened) from traumatic events. The authors evaluated the accuracy of archival eyewitness testimony from survivors of the Titanic disaster who witnessed the ship's final plunge. The results indicate that most eyewitness testimony (15 eyewitnesses of 20) is consistent with forensic evidence that demonstrates that the Titanic was breaking apart while it was still on the ocean's surface. Despite the methodological limitations of archival research, the authors provide evidence from a single-occurrence traumatic event (with a large-scale loss of life) that the majority of eyewitnesses accurately recall central details."

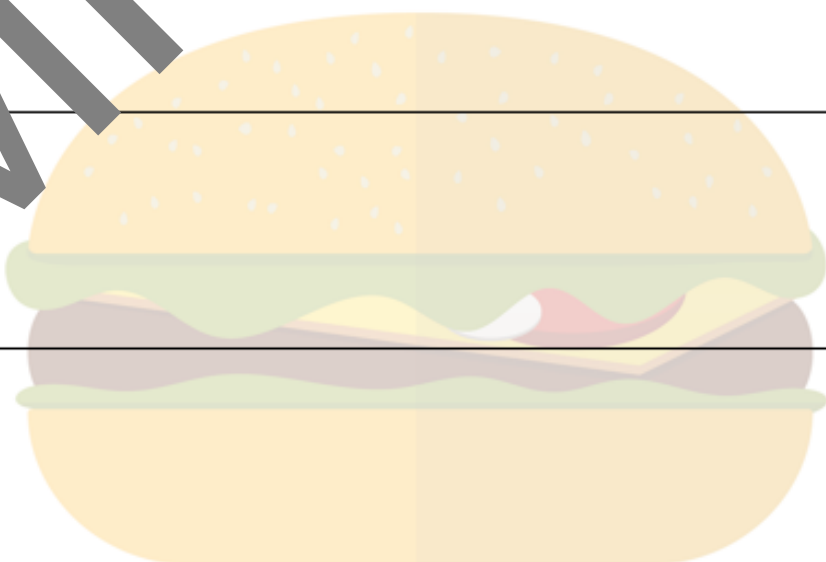
Riniolo et al., (2003, page 291)

Why did Riniolo et al., (2003) find? How does these results refute the findings of Johnson & Scott?

Eyewitness Testimony

- You can also use these studies to evaluate Johnson & Scott's findings and the claim that anxiety improves the accuracy of EWT.
- **Task: Using the evidence from Yuille & Cutshall's research. Write one burger (Point, Evidence, Explain) paragraph to evaluate John & Scott's findings and the claim that anxiety improves the accuracy of EWT.**

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Point	
Evidence/Example	
Explain	



Eyewitness Testimony

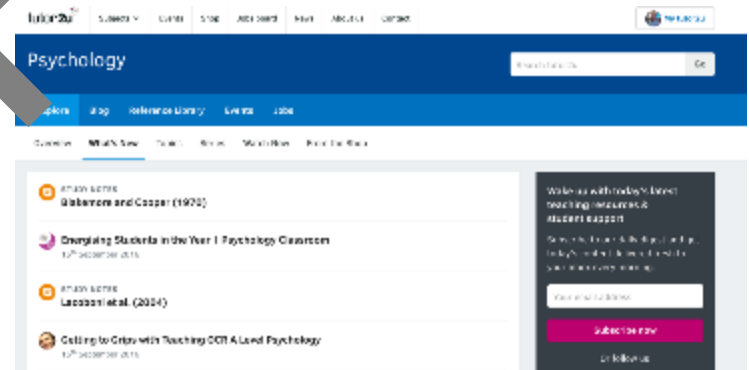
Point	One issue with Johnson and Scott's research and the claim that anxiety improves the accuracy of ETW, is that not all studies support their findings.
Evidence or Example	Yuille & Cutshall (1986) gathered evidence from a real-life shooting (where anxiety would have been extremely high). They found that all of the witness accounts were highly accurate even five months after the original event. Furthermore, the witnesses resisted leading questions and their stress levels (anxiety) at the time of the event had little effect on their subsequent memory.
Explain	This matters because it suggests that anxiety has little or no effect on the accuracy of eyewitness testimony in the real-world and casts severe doubts over the validity of laboratory studies investigating EWT.

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Eyewitness Testimony – Anxiety Evaluation

- **Ethical issues** consider whether or not the psychologist(s) adhered to the code of ethics and why this may have been an issue.
- **Methodological issues** consider whether or not the method (procedure) of the study may have affected the results. For example:
 - Were the tasks that the participants had to perform realistic?
 - Was the study carried out in a natural or artificial environment?
- **Sampling issues** consider whether or not the sample used in the study can be generalised to other groups of people.

Task: After you have considered the methodological and ethical issues with Johnson and Scott's study, write one burger (Point, Evidence, Explain) paragraph for each of the methodological issues in the space below.

Point	
Evidence/ Example	
&D or Counter- Argument	
Explain	

Extension: For this evaluation point, could you add a counter-argument to enhance your evaluation point even further. For example, if you have outlined the issue of demand characteristics, could you explain how Johnson and Scott avoided demand characteristics?

Task: In pairs, read one of the two studies, Yuille & Cutshall or Riniolo et al. Then answer the question underneath your study. Once you have both read your own study and answered the question, explain the findings of your study to your partner and explain why this study refutes the findings of Johnson & Scott's research.

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"21 witnesses observed a shooting incident in which 1 person was killed and a 2nd seriously wounded. The incident took place on a major thoroughfare in midafternoon. All of the witnesses were interviewed by the investigating police, and 13 witnesses (aged 15–32 years) agreed to a research interview 4–5 months after the event. In the present study, the eyewitness accounts provided in both the police and research interviews were analyzed. The witnesses were highly accurate in their accounts, and there was little change in amount or accuracy of recall over 5 months. The eyewitnesses responded to leading questions, and their stress levels at the time of the event appeared to have no negative effects on subsequent memory. The results differ from the pattern of many laboratory studies of eyewitness memory (i.e., in the degree to which the witnesses in the present study were actively involved in the event) and point to the need for field research of this type to evaluate the generalizability of laboratory experiments."

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Riniolo et al., (2003, page 291)

Why did Riniolo et al., (2003) find? How do these results refute the findings of Johnson & Scott?

Task: Using the evidence from Yuille & Cutshall's research. Write one burger paragraph (Point, Evidence, Explain) to evaluate John & Scott's findings and the claim that anxiety improves the accuracy of EWT.

Point	
Evidence/ Example	
Explain	

Extension: Now do the same for Riniolo et al. (2003)

Point	
Evidence/ Example	
Explain	

References

Riniolo, T. C., Koledin, M., Drakulic, G. M., & Payne, R. A. (2003). An archival study of eyewitness memory of the Titanic's final plunge. *The Journal of general psychology*, 130(1), 89-95.

Yuille, J. C., & Cutshall, J. L. (1986). A case study of eyewitness memory of a crime. *Journal of applied psychology*, 71(2), 291.