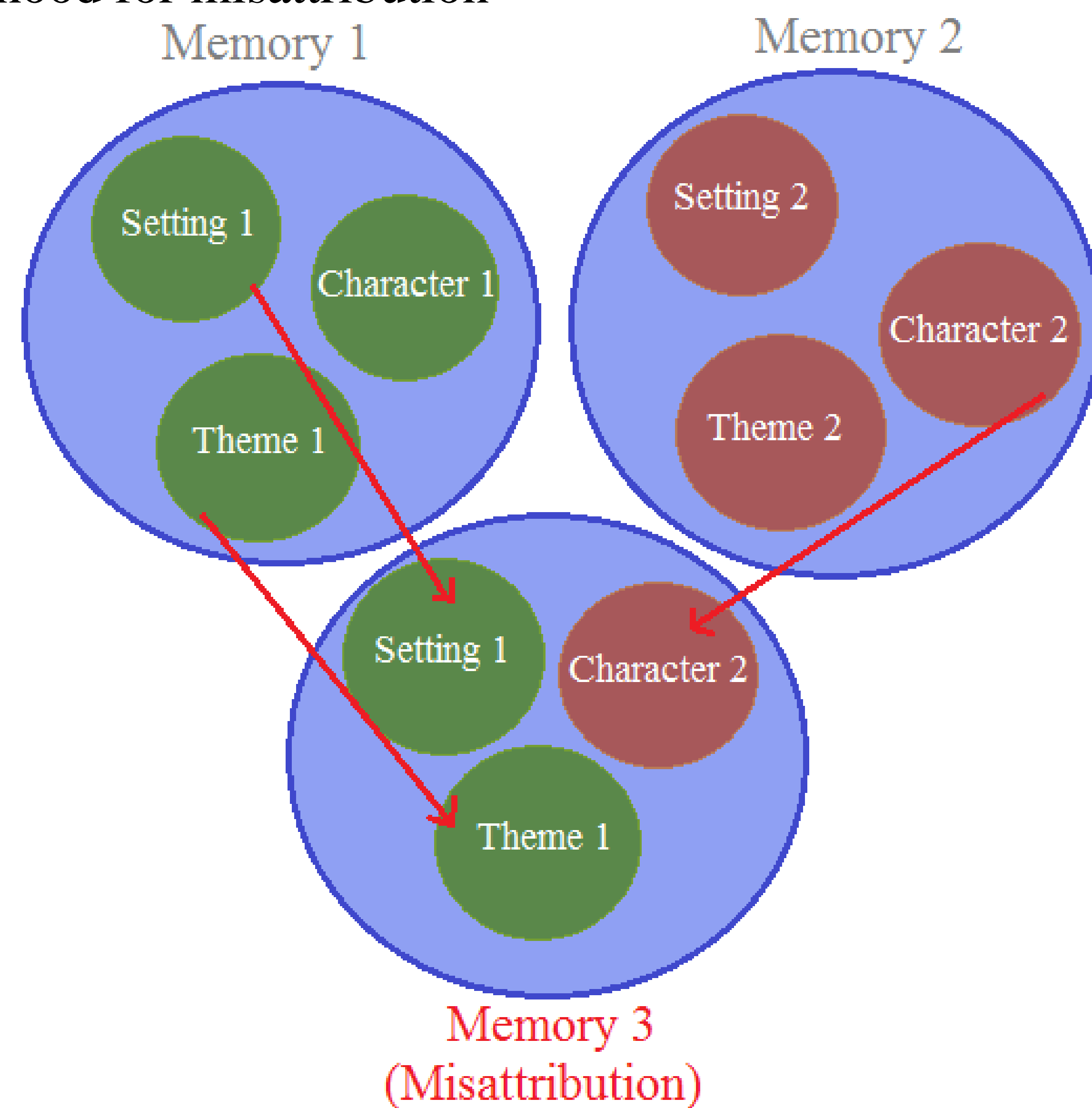


# Similar Stimuli and Misattribution

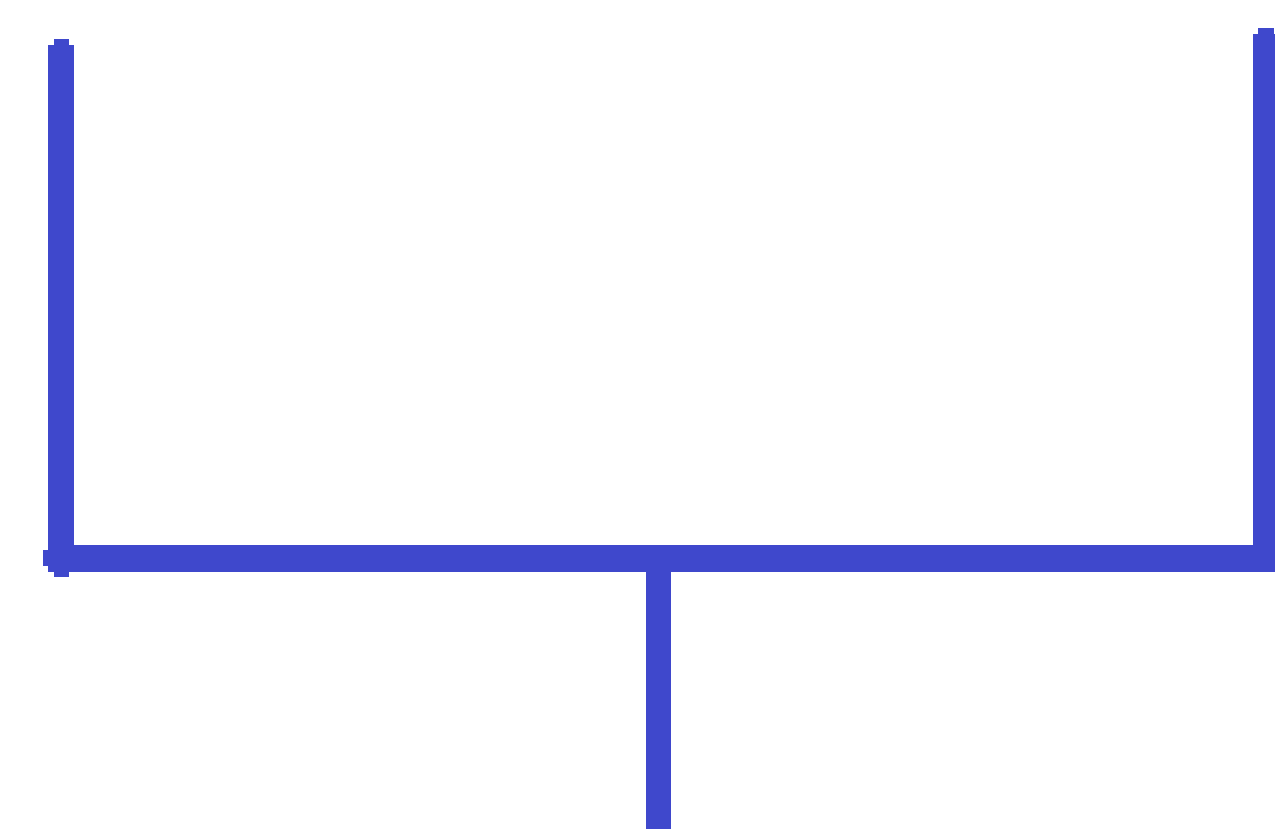
McNeese, T.  
Fort Lewis College

In this study I investigated the memory error known as misattribution. I examined how one may unconsciously transfer aspects of one memory into another. More specifically I looked at the occurrence of misattribution when there are similar details in the presented stimuli (two memories). Will those presented with similar details display misattribution more than those presented with non-similar details? Similar to a previous study, half of the participants were given two stories with the main character having the same name, while the other half received stories containing different names. Participants were then asked to perform a recognition task regarding the details from the stories. The results indicate that there was not a significant difference between the two groups. There was a small difference in the mean scores between the two groups, with those in the group with the same name actually scoring slightly higher. This reveals that the results are due to chance. The results indicate that misattribution will not occur when participants are asked to recognize details from a short memory that is two paragraphs in length and the similarity is the name of the main character.

- o Misattribution is the unconscious transfer of aspects of one memory into another memory
- o Why does misattribution occur?
  - When recalling a memory, we may combine details from multiple memories
  - We confuse or forget the source in which the memory or information came from
  - We may bind every piece of a single memory into one package
- o Familiarity and similarity of details among memories increases the likelihood for misattribution



Rainbow      Peacoat



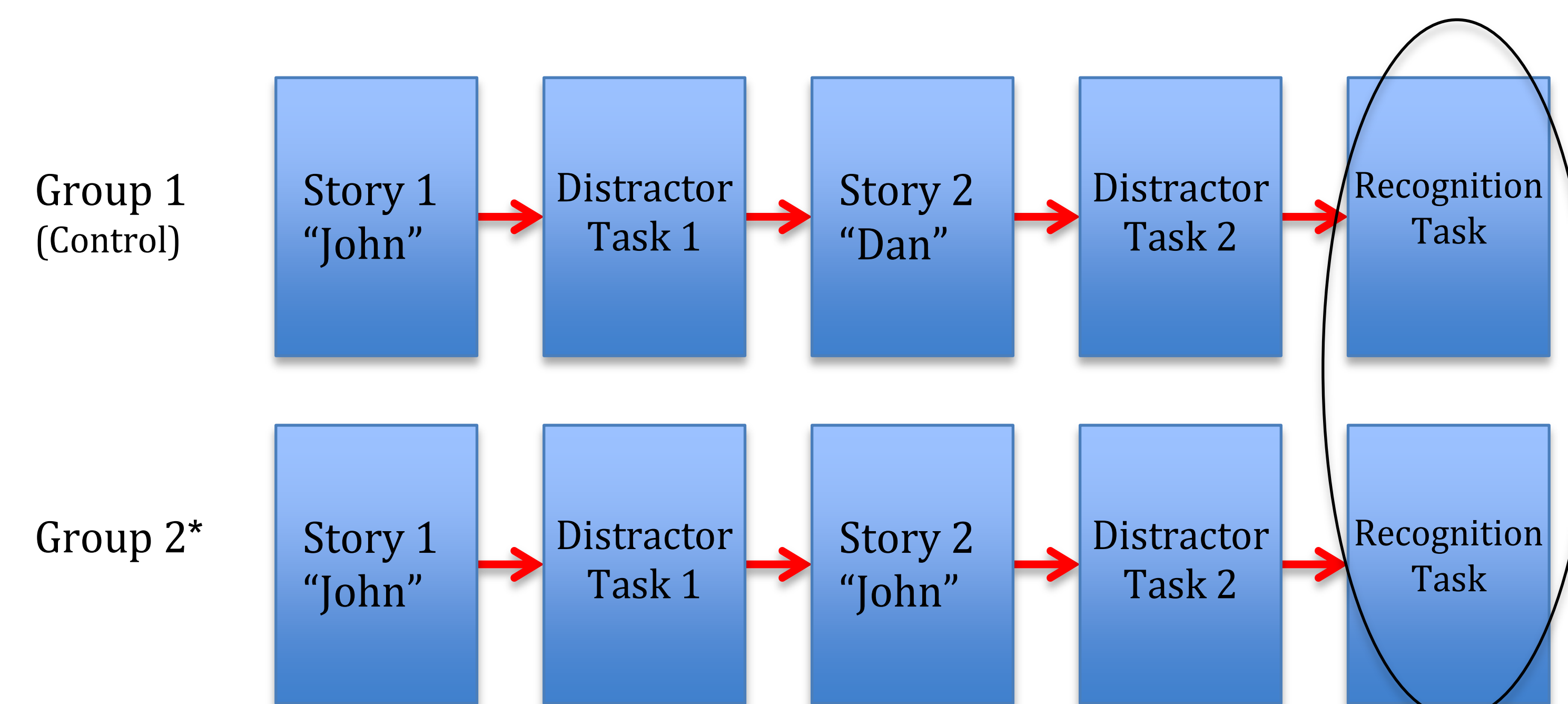
**Raincoat**  
(Word Remembered)

## Experiment

- Manipulate the names of the character in each story to create one group that receives stories with the same name and another group that receives stories with different names (control group)
- To assess memory, participants complete recognition task in regard to story details
- Measure the mean number of correct answers for each group to determine occurrence of memory errors (misattribution)
- Compare scores to see which group has a higher occurrence of misattribution

## Hypothesis

- Participants receiving similar stimuli will misattribute more than those receiving stimuli that is not similar
- Those in the group reading stories with the same name will have lower mean scores (recall less) on the recognition task

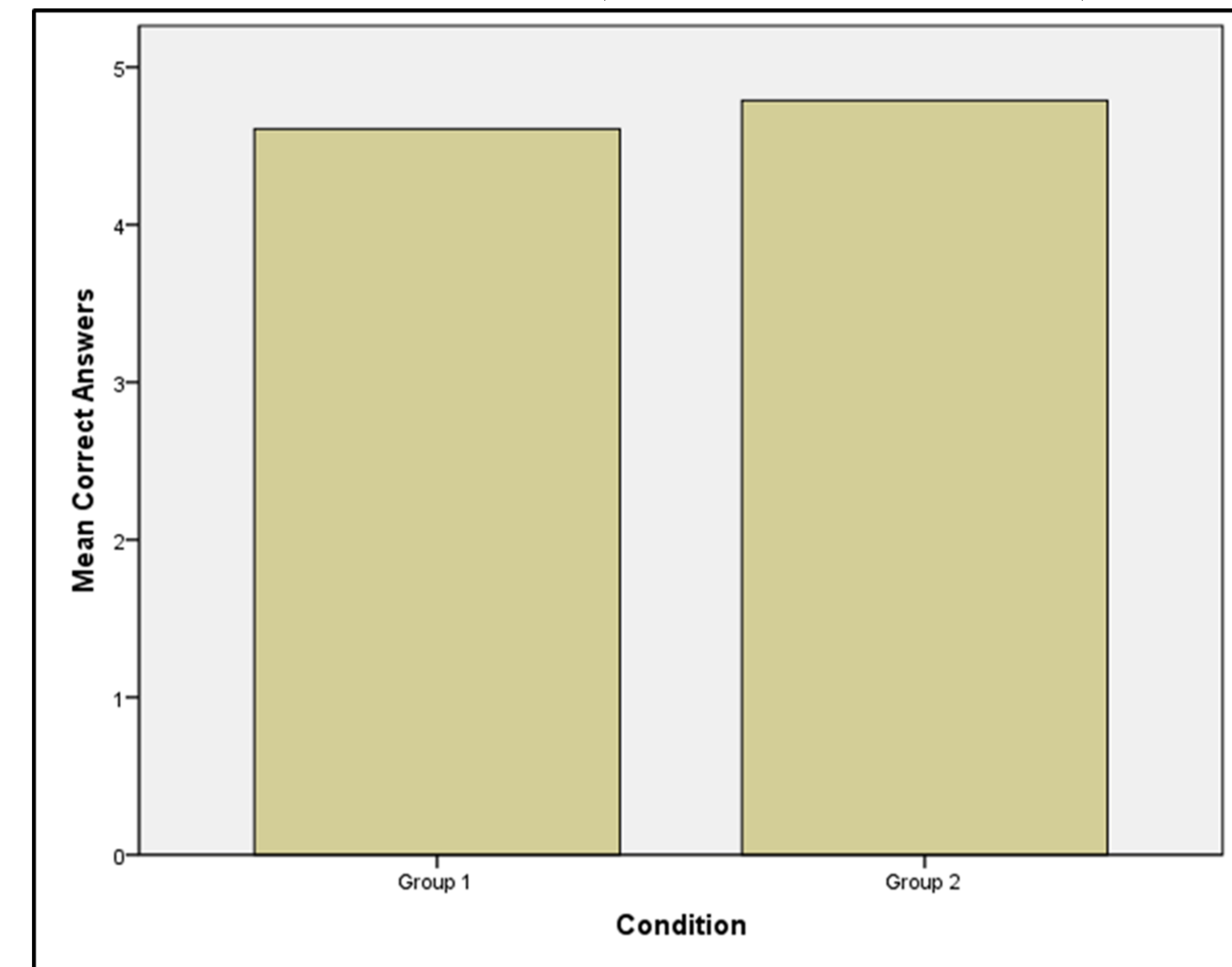


1. Who was once in the army?  
a. John b. Dan c. Both
2. Who was German?  
a. John b. Dan c. Both
3. Which story takes place on a Thursday?  
a. John b. Dan c. Both

\* Story 1 was identical in both Group 1 and Group 2. Story 2 was the same in both groups with the only difference being the name of the main character. Both group's packet stated that the characters were different people.  
\*\* The image represents three of the questions on the recognition task for Group 1. Group 2 differed in that the first question listed options as "John L. (from Story 1)" and "John R. (from Story 2)" instead of "John" and "Dan". The following six questions in Group 2 referred to the different characters as "John L." and "John R."

## Experiment Results

- Independent-samples t test
- It was found that those in Group 1, who read stories with different names (M=4.61, SD=1.67, N=23), did not score significantly higher compared to those in Group 2, who read stories with the same name (M=4.79, SD=1.44, N=19)



## Conclusion

- o Similar stimuli in memories, such as having the same name, does not significantly affect the occurrence of misattribution
- o Particular similarities in things such as gender, age, name, and context may affect the strength and likelihood of misattribution
- o There may be a positive relationship between the length of the memory and the occurrence of misattribution.
- o There may be a positive relationship between the number of details and the occurrence of misattribution.

## References

Gibbons, J. A., Vogl, R. J., & Grimes, T. (2003). Memory misattributions for characters in a television news story. *Journal of Broadcasting & Electronic Media*, 47(1), 99-112. doi: 10.1207/s15506878jobem4704\_14.

Gruppuso, V., Lindsay, D. S., & Masson, M. E. J. (2007). I'd know that face anywhere! *Psychonomic Bulletin & Review*, 14(6), 1085-1089. doi: 10.3758/BF03193095.

Jones, T. C. & Jacoby, L. L. (2001). Feature and conjunction errors in recognition memory: Evidence for dual-process theory. *Journal of Memory and Language*, 45, 82-102. doi: 10.1006/jmla.2001.2713.

Marsh, R. L., Hicks, J. L., & Davis, T. T. (2002). Source monitoring does not alleviate (and may exacerbate) the occurrence of memory conjunction errors. *Journal of Memory and Language*, 47, 315-326. doi: 10.1016/S0749-596X(02)00005-0.

Reinitz, M. T., Lammers, W. J., & Cochran, B. P. (1992). Memory-conjunction errors: Miscombination of stored stimulus features can produce illusions of memory. *Memory & Cognition*, 20(1), 1-11. doi: 10.3758/BF03208247.

Roediger III, H. L., Jacoby, J. D., & McDermott, K. B. (1996). Misinformation effects in recall: Creating false memories through repeated retrieval. *Journal of Memory and Language*, 35(17), 300-318. doi: 10.1006/jmla.1996.0017.