

Executive Summary:

This study aims to quantify the differences between autobiographical and imagined stories by introducing a measure called sequentiality, which captures the flow of a narrative by comparing the probability of a sentence with and without its preceding story context. The researchers applied this measure to study thousands of diary-like stories and found that imagined stories have higher sequentiality than autobiographical stories. Additionally, they found that the sequentiality of autobiographical stories increases when the memories are retold several months later. The study also explores the proportions of major and minor events in story sentences and highlights the potential of using computational analyses like sequentiality to study the influences of memory and reasoning on language generation processes.

Key Insights:

- The study introduces a measure called sequentiality to quantify the flow of narratives by comparing the probability of a sentence with and without its preceding story context.
- Imagined stories have higher sequentiality than autobiographical stories.
- The sequentiality of autobiographical stories increases when the memories are retold several months later.
- Lower sequentiality is associated with higher proportions of major events in story sentences.

Structured Outline:

I. Introduction

- A. Background on narrative flow in stories
- B. Limitations of existing computational tools for evaluating narrative flow
- C. Introduction of sequentiality as a measure to quantify narrative flow

II. Methodology

- A. Collection of diary-like stories from crowdworkers
- B. Annotation of event saliency in a subset of stories
- C. Computation of sequentiality, proportion of realistic events, and other metrics

III. Results and Findings

- A. Comparisons between autobiographical and imagined stories:
 1. Imagined stories have higher sequentiality than autobiographical stories
 2. Autobiographical stories become more similar to imagined stories when retold after several months
- B. Relationships between event saliency and sequentiality:
 1. Sentences with major events have lower sequentiality compared to sentences with no events
 2. Sentences with minor events have lower sequentiality compared to sentences with no events in certain conditions

C. Differences in proportions of realistic events and concrete words between autobiographical and imagined stories

IV. Discussion

- A. Utility of sequentiality as a measure of narrative flow
- B. Insights into the cognitive processes of recalling versus imagining stories
- C. Future research directions and applications of the methods and findings

V. Conclusion

(Note: This summary condenses the information from the text into a concise representation of the main points.)