Research Plan – Assessing forgetting across a representational hierarchy

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### RESEARCH QUESTIONS

1. **Does the forgetting rate change according to the level of a representational hierarchy?**
   - Items are forgotten relatively quickly and exponentially.
   - Narrative content is forgotten more slowly and linearly than surface text.

2. **Is forgetting holistic or fragmented depending on the level of representation?**
   - Events are holistically forgotten.
   - Sometimes memories of object features fragment.

3. **Do higher-order representations support the retention of lower-level representations?**

### THE QUALITY OF FORGETTING

- Lower-level representations fragment with time

#### METHODS

**The Stimulus Set**

<table>
<thead>
<tr>
<th>Narratives</th>
<th>Events</th>
<th>Objects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purple</td>
<td>Ball</td>
<td>Garden</td>
</tr>
<tr>
<td>Blue</td>
<td>Glass</td>
<td>Library</td>
</tr>
<tr>
<td>Green</td>
<td>Metal</td>
<td>Stage</td>
</tr>
</tbody>
</table>

#### DATA ANALYSIS

- We will assess forgetting at each level of representation (objects, events, and narratives) across multiple delays:
  1. Measuring retrieval accuracy at multiple delays
  2. Calculating retrieval dependency at multiple delays

#### THE RATE OF FORGETTING

- Higher-order representations are retained better over time
  - Objects = Exponential forgetting rate
  - Events = More linear forgetting rate
  - Narratives = Linear forgetting rate

#### PILOT DATA, N = 19

- **Experiment 1**: Are objects retained better when embedded in events? (Research Question 3)

#### FUTURE STUDIES

1. **Are events retained better when embedded within narratives?**
   - **Experiment 2** will investigate whether spatiotemporal events are retained better when these are embedded within temporally and causally linked narratives as opposed to in isolation.

2. **Plotting the forgetting curves of objects, events, and narratives across multiple delays**
   - **Experiment 3, 4, 5** will investigate memory for object, event, and narrative information across multiple test delays.

### REFERENCES