**Confabulation Bias:**

Confabulation bias refers to a cognitive bias characterized by the tendency to generate fabricated or inaccurate information to fill in memory gaps, often without the individual's awareness. In confabulation, individuals create false details or narratives to explain events, experiences, or gaps in their memory. This bias can occur as a result of memory errors, the brain's attempt to make sense of incomplete information, or a desire to maintain coherence in one's personal narrative. Confabulation bias can lead to the creation of vivid and plausible but entirely fictional memories, influencing one's perception of past events.

1. Forgotten Anniversary:

Mark forgets his wedding anniversary and, when asked by his spouse about the special day, he confidently creates a detailed story about a surprise trip that never happened.

1. Lost Wallet:

Emily misplaces her wallet and, unable to recall where she left it, creates a narrative about meeting a friend who borrowed some cash, even though she never encountered anyone that day.

1. Job Interview Outcome:

After a job interview, Alex, unsure about the outcome, confabulates positive feedback and believes he answered all questions perfectly, even though he doesn't remember specific details.

1. Failed Exam Explanation:

Sarah fails an exam and, unable to remember the correct answers she provided, confabulates a story about a distracting noise during the test affecting her performance.

1. Missed Flight:

David misses a flight due to oversleeping. When asked by colleagues, he confabulates a story involving traffic, claiming he left home early.

1. Misplaced Keys:

Lisa searches for her keys without success. In an attempt to explain their absence, she confabulates a story about lending them to a neighbor, though it never happened.

1. Unattended Party:

Tom skips a friend's party, but when asked about his absence later, he confabulates a tale of a sudden work commitment that prevented him from attending.

1. Unfinished Chores:

Emily fails to complete assigned tasks at work. To cover up her lapse, she confabulates a story about unexpected technical issues disrupting her workflow.

1. Shopping Spree Justification:

John overspends during a shopping spree. When questioned by his partner, he confabulates a narrative about unexpected discounts and irresistible deals.

1. Late Night Out:

Sarah stays out late with friends without informing her family. When asked about her whereabouts, she confabulates a story about helping a friend in need.

In each scenario, confabulation bias leads individuals to create fictional details or events to explain gaps in memory or justify their actions, often without a conscious awareness of the fabrication. This bias highlights the malleability of memory and the mind's tendency to construct coherent narratives even when faced with incomplete or inaccurate information.

**User Story: "The Late Night Out"**

Meet Sarah, a college student living with her family. One weekend, she decides to spend the night out with friends, attending a late-night event without informing her family.

User Story:

Sarah, eager to enjoy a spontaneous night with friends, attends a concert that extends well into the early morning hours. However, mindful of her family's expectations and knowing that she didn't inform them of her plans, she faces a dilemma.

The next morning, Sarah returns home, realizing she needs to explain her late-night absence. Feeling the pressure of potential consequences, she succumbs to confabulation bias. When her concerned family asks about her whereabouts, Sarah, without a clear memory of the night's events, fabricates a story about unexpectedly meeting an old friend who needed emotional support.

In her confabulated narrative, Sarah embellishes details about the encounter, creating a plausible and emotionally charged scenario to justify her late return. Unaware of the confabulation bias at play, she confidently shares this story with her family, believing it to be a genuine account of the night.

This user story highlights how confabulation bias can emerge in situations where individuals feel the need to explain their actions, especially when faced with potential scrutiny or consequences. Sarah's fabricated story, influenced by the desire to maintain coherence in her personal narrative, exemplifies the impact of confabulation on memory and communication.

**Competency questions:**

What did Sarah do after arriving home from the concert?

How did Sarah justify her actions with her parents?

Why did she feel the need to fabricate a story?

Classes and Properties

**Classes:**

Agent: Individual demonstrating Confabulation Bias

Event: Situation prompting the emergence of Confabulation Bias

Memory Gap: Missing or incomplete information in memory

Evidence: Fabricated narrative created to fill memory gaps

Outcome: Resulting consequences of experienced event

**Properties:**

hasBias: Indicates an individual possesses Confabulation Bias

experiencesEvent: Denotes an individual encountering a situation prompting Confabulation Bias

fillsMemoryGap: Signifies the act of creating fabricated information to fill memory gaps

providesJustification: Indicates an individual offering reasoning to justify their actions or decisions

resultsIn: Refers to the consequences resulting from Confabulation Bias

**Chosen Framester Frames:**

**fs:People:** This frame contains general words for Individuals, i.e. humans. The Person is conceived of as independent of other specific individuals with whom they have relationships and independent of their participation in any particular activity. They may have an Age, Descriptor, Origin, Persistent\_characteristic, or Ethnicity. A man from Phoenix was shot yesterday. She gave birth to a screaming babyyesterday. I study 16-year-old female adolescents. I am dating an African-American man. She comforted the terrified child. I always thought of him as a stupid man.

<http://etna.istc.cnr.it/framester2/data/framestercore/People>

**fs:Event:** An Event takes place at a Place and Time. Big earthquakes only happen along plate boundaries. INI The party will take place on Sunday in the all-you-can-eat buffet.

<http://etna.istc.cnr.it/framester2/data/framestercore/Event>

**fs:Evidence:** The Support, a phenomenon or fact, lends support to a claim or proposed course of action, the Proposition, where the Domain\_of\_Relevance may also be expressed. Some of the words in this frame (e.g. argue) are communication words used in a non-communicative, epistemic sense. The latest poll results show that support of the president is at an all-time low.

<http://etna.istc.cnr.it/framester2/data/framestercore/Evidence>

**Chosen Content ODPs and resources**

**Experience and Observation**  
to represent the epistemological "missing link" between a cognitive activity, e.g. the interaction with a cultural object, and any evidence of the effects this activity has on the individuals that are engaged with it; what can collectively be considered as an experience.

**isEngagedIn** (owl:ObjectProperty) Because an activity may engage other participants than the one performing it, engagements are in general considered individual rather than collective, therefore each participants has their own engagement and only some of them will be conscious and/or documented.

**includes** (owl:ObjectProperty) A relation of mereological nature that connects a given observation with the activity that originates them: it strengthens the argument that observations are always active processes from a cognitive standpoint, regardless of how conscious they may be. A standard mereological property from another content pattern may be used in lieu of this one and therefore aligned with it.

**AffectedBy**  
To represent properties/qualities that may affect the status of a feature of interest.

**DBPedia Ontology:** dbo:produces

**Bibliography:**  
Edmonds, E. C., Delano-Wood, L., Galasko, D. R., Salmon, D. P., & Bondi, M. W. (2014). Confabulation in healthy aging and dementia: Evidence from eyewitnesses. The American Journal of Geriatric Psychiatry, 22(12), 1622-1629.