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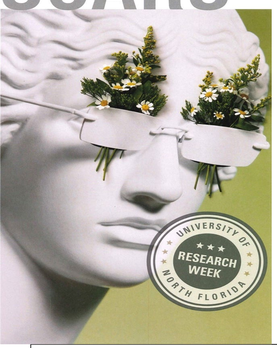

An Evaluation of Context Awareness in Similarity Measurement: Total-Set Versus Classic Pairwise Comparison

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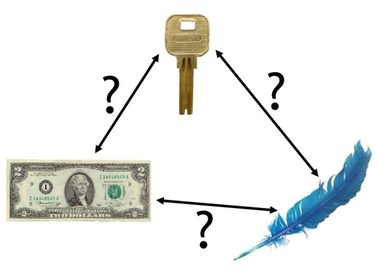
Why Measure Subjective Similarity?[1]

- A component of many theories
  - Learning
  - Memory
  - Categorization
  - …
- Not objectively deducible



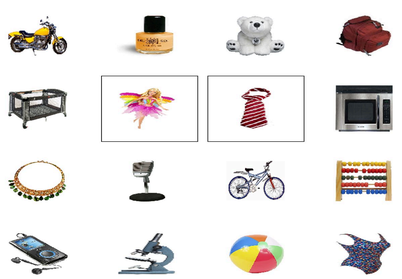
What is Pairwise Comparison (PW)?

- Tool in determining one's sense of similarity
- How it is used:
  - Participant is shown two items of a set at a time
  - Perceived similarity is rated
  - Process repeats until all pairs have been evaluated
- Types of PW:
  - Classic
  - Total-Set

Two Methods of Measuring Subjective Similarity Using Pairwise Comparison:

1. Classic

2. Total-Set (TS)[2]



The Difference Between Classic and Total-Set Pairwise Comparison:

- The process for each is the same: pairwise comparison of all possible pairs in the set
- TS, the entire set of items remains in view
- Classic, only the two rated items are shown

Research Purpose: To systematically evaluate changes in awareness between classic and total-set PW across trials for categories of items at the subordinate, basic, and superordinate levels

THE CURRENT STUDY

Design:

- Participants randomly assigned to Classic or TS
- All participants complete three phases: subordinate, basic, and superordinate categories[6]
- Order of phases counterbalanced across subjects
- Within a phase, participant rates similarity of all possible pairs
- Probes test awareness of context periodically during phases

Hypotheses:

- Participants performing the TS method will be more aware of the context of their judgements, especially during early trials.
- Participants performing the classic method will begin by assuming the total set to be at the basic level and adjust as more information becomes available across trials.

Stimuli:

Subordinate

Basic

Superordinate

Peek into the program: probe

What This Study Will Determine:

- The results of this study will help researchers to choose more wisely between classic and total-set pairwise comparison methods.
- Currently, data collection is in progress.

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