The Effects of Similarity on the Persistence of Comparative Behavioral Mindsets

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Introduction

The cognitive spill-over effect involves the relationship between knowledge accessibility, memory, and behavior, thus having implications for understanding the mental processes used and actions chosen in goal pursuit. Xu (2018) describes this spill-over effect through the understanding of behavioral mindsets, which are cognitive processes activated in the pursuit of a goal which may be used for subsequent, seemingly unrelated tasks. Goal-activated procedures are represented at varying levels of abstractness within an associative network, meaning two seemingly different situation-specific procedures are the same at a basic level. When applying a situation-specific procedure to a situation-specific goal, the general procedure chosen is more accessible within memory, and therefore exists a greater likelihood of using that procedure for following tasks so long as they are applicable.

In a series of experiments, Xu and Wyer (2008) sought to understand the effect of inducing a comparative mindset on the likelihood of choosing between two alternatives rather than rejecting both, specifically termed a which-to-choose mindset. This process involves three decisional steps: whether to choose an alternative, which alternative to choose, and how. In experiment 3, participants indicated their preferences for animal pairs or compared them on a specific attribute (Xu & Wyer, 2008). Then they considered six personality characteristics of two potential dating partners (three desirable and three undesirable traits), and identified their preference for Person A, Person B, or neither. Those who had indicated preferences or compared animals were more likely to choose a partner, while those in the control were more likely to choose neither.

If indicating preferences in one task increases the likelihood of choosing in a task occurring immediately after, how long will it take between tasks for this effect to no longer occur? The proposed study aims to answer this question by inserting a filler task that eliminates choice and decision-making.

Another experiment by Xu and Wyer (2008) found that making similarity judgments for object pairs in four domains produced the same effect stated above. Is it possible that indicating preferences for more similar objects will more strongly activate a comparative mindset than comparing dissimilar objects due to a larger number of overlapping features for comparison? The proposed study aims to answer this question by incorporating conditions for preference decisions based on established similarity ratings of animal pairings.

Most Similar Animal Pairs	Most Dissimilar Animal Pairs
Cat & Gorilla	Buffalo & Raccoon
Donkey & Gorilla	Dog & Rabbit
Buffalo & Koala	Koala & Squirrel
Giraffe & Rhinoceros	Cat & Tortoise
Elephant & Donkey	Lion & Sheep
Koala & Lion	Squirrel & Buffalo
Camel & Raccoon	Rabbit & Rhinoceros
Sheep & Squirrel	Camel & Sheep
Gorilla & Elephant	Pig & Squirrel
Cow & Camel	Rabbit & Zebra

Method

We hope to obtain 120 participants from the University of North Florida's SONA voluntary participation system of varying demographics. There will be six conditions which participants will be randomly assigned: similarity comparison priming, similarity comparison priming with filler task, dissimilarity comparison priming, dissimilarity comparison priming with filler task, control, and control with filler task.

Upon entry, participants will be instructed to complete a short demographic questionnaire consisting of age and gender using a computer-based survey system For all comparison priming conditions, the survey will present ten pairs of animals and instruct to indicate preferences within each pair. This task is intended to activate comparative mindsets and is a variation of the activation task used by Xu & Wyer (2008). Pairs of more similar and more dissimilar animal pairings were chosen from data collected by Kulpa (2018) on similarity ratings for animals using total-set pairwise comparison. Two lists were generated, one for similarity and one for dissimilarity. The degree of repetition between the two lists was kept at a comparable rate, with some animal pairs eliminated to reduce repetition. Each list was ordered to balance presentation of individual animals in trials close together.

Following the initial activation task, the computer survey will be abandoned by participants. Those in the filler task condition will be handed a container of multi-colored wooden toy blocks and organize them on a table into piles based on shape. They will then be given a sheet with an image of a structure, and instructed to build it with the blocks without matching block colors exactly. Once completed, they will return the blocks to the container. This task is intended to eliminate use of the activated mindset and interfere with its persistence. This task will be timed.

All participants will be given the dependent task, which is a slightly adjusted dating preference measure used by Xu & Wyer (2008) to assess the effect of the initial activation task on choosing behavior. Participants will be presented with two sets of personality characteristics for potential dating partners on printed sheets. Descriptives for both persons consists of six words with three desirable and three undesirable attributes. Two words from the original measure were replaced with synonyms (filial:loyal, verbose: wordy) due to their advanced vocabulary level. Participants will indicate their preference for dating person A, person B, or neither.

After completing the dating preference questionnaire, participants will be free to leave.Â Researchers will then input the time taken for the filler task and choice on the dating preference questionnaire into the computer-based survey.

Expected Results

We expect results from our study to be consistent with findings by Xu and Wyer (2008), but also to build upon their conceptualization. Spill-over of comparative mindsets is expected to occur for all priming conditions, though differences between priming type and delay are also anticipated.

We expect to observe an increased likelihood of choosing a dating partner for both priming conditions without the filler task than for those with the filler task, and an even smaller likelihood for choosing a partner in the control conditions. Therefore, incorporation of the filler task is hypothesized to interfere with the persistence of the which-to-choose mindset regardless of priming type, with participants choosing neither partner more often than those in the no filler condition at a similar rate to those in the control.

A significant difference between similarity and dissimilarity priming type on the likelihood of choosing a dating partner is anticipated, with a greater likelihood of choosing for those in the similarity priming. Participants in the similarity priming are hypothesized to choose a dating partner more often than those in the dissimilarity priming.