

Looking at Both Sides of the Coin: Mixed Representation Moderates Attribute-Framing Bias in Written and Auditory Messages

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To appear in *Applied Cognitive Psychology*

Abstract

People evaluate objects/events more favorably when presented in a positive frame than when presented in the complementary negative framing. Recent studies show that this attribute-framing bias can be moderated when both positive and negative frames are represented in the message. Most attribute-framing studies used written messages, although important messages are often conveyed auditorily. Unlike written messages, recipients cannot re-read auditory messages, and have to rely on their memory when evaluating them; consequently the moderating effect of mixed representation may depend on memory constraints. The current study examined the moderating effect of mixed representation of outcome in auditory vs. written messages. In both written and auditory messages, mixed-attribute representation moderated the attribute-framing bias relative to the substantial bias found using single attribute representation. The results are discussed in terms of the role of memory and attention in the attribute-framing bias.

Method

Participants: 400 Mturk participants.

Design: 2 X 2 X 2 between-participants design – Framing (positive vs, negative) X Presentation Mode (auditory vs, text) X Outcome Representation (single vs. mixed).

Materials: two vignettes describing (a) beef that was 80% lean (positive) or 20 % fat (negative); and (b) a basketball player that makes 70% (or misses 30%) of his free throws.

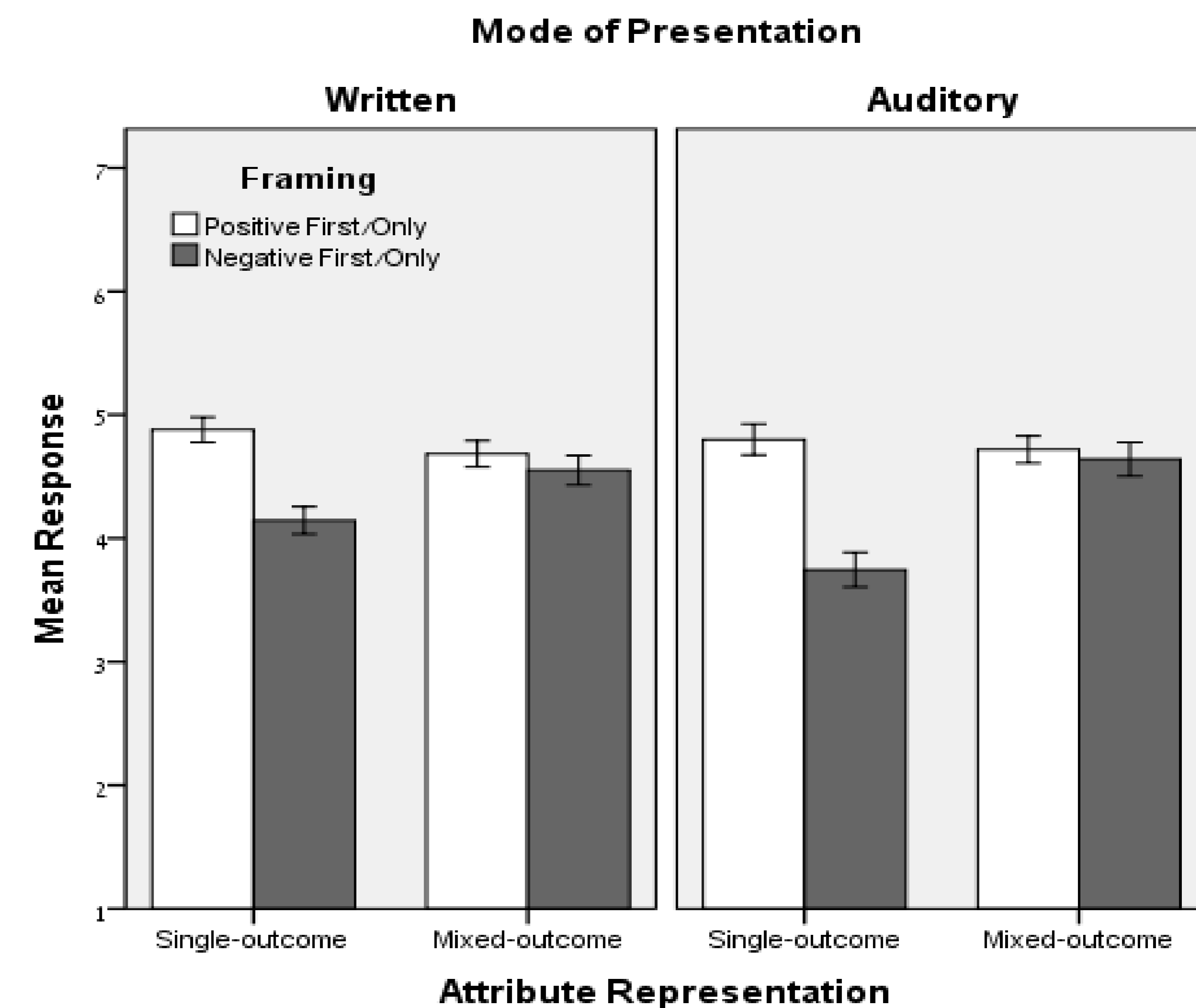
Results

- **Attribute framing effect** - Participants exhibited higher responses in the positive framing relative to the negative framing in all four conditions.
- **Single vs. mixed representation** - The attribute-framing effect sizes were large in the single-outcome conditions for both written (Cohen's $d = 0.93$; $t(108) = 4.87$, $p < .001$), and auditory ($d = 1.18$; $t(87) = 5.56$, $p < .001$) messages. Only marginal attribute-framing effect sizes were found for the mixed-outcome conditions for both written ($d = 0.16$; $t(104) = 0.83$, $p = .41$), and auditory ($d = 0.09$; $t(87) = 0.45$, $p = .65$) messages.
- **Presentation mode** - did not show significant main effect or interactions.

Discussion

- In both written and auditory messages single attribute representation yielded substantial framing bias whereas mixed-attribute representation moderated the bias.
- This finding replicates previous findings (Gamliel & Kreiner, 2013) and extends them to show that similar moderation occurs when the message is presented auditorily.

Figure 1: Response index as a function of framing, presentation mode, and attribute representation (error bars represent 1 standard error).



References

- Kreiner, H., & Gamliel, E. (in press). Looking at both sides of the coin: Mixed representation moderates attribute-framing bias in written and auditory messages. To appear in *Applied Cognitive Psychology*.
- Seta, J. J., McCormick, M., Gallagher, P., McElroy, T., & Seta, C. E. (2010). Voice frequency impacts hemispheric processing of attribute frames. *Journal of Experimental Social Psychology*, 46(6), 1089-1092.