

Matching moods between image and text: an investigation of the interplay of emotional valence in NPOs' social media posts

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Introduction and theoretical background

The growing competition for fundraising using social media has driven non-profit organizations to adopt communication strategies that evoke a range of emotions, from positive to negative, by portraying beneficiaries in various states—whether sad, suffering, happy, or grateful. In such a context, posts often feature an image accompanied by text in a caption or overlaid on the image, and the question of how to optimize engagement becomes more complex. This study examines the role of emotional matching (vs. mismatching) between image and text, as well as the influence of text positioning within posts, in enhancing consumer engagement (i.e. likes, comments, and shares). The literature on charity advertising highlights the persuasive role of emotions in attracting donors, though it's debated whether positive or negative emotions work better (Septianto & Tjiptono, 2019). This dilemma intensifies when both images and text are involved. Here, emotional valence between the two can either align or diverge. Studies on emotional contrast and mixed emotions (Rahim 2023, Homer 2021, Schmidt 2012) suggest that presenting negative emotions followed by positive ones, or vice versa, creates a contrast that strengthens the message's impact and retention.

H1: In NPO's social media posts, matching (mismatching) the emotional valence (positive/negative) between image and text will lead to lower (higher) performances in terms of social media engagement.

Advertising research underscores the importance of combining visual and textual elements to capture attention and enhance processing (Rossiter & Percy, 1980). Dual coding theory explains that while verbal and nonverbal information are processed separately, they work together to improve comprehension (Paivio, 1991). Though the value of combining visuals and text in advertising is clear (Reimer, 2023), the effect of text placement—integrated or separated from the image—on social media engagement remains uncertain. Gestalt theory's law of simplicity suggests that captions separated from the image, being distinct, are easier to read and process (Mennan, 2009).

H2: NPO's social media posts with the text separated from the image (i.e. in the caption), generate higher performances in terms of social media engagement than NPO's social media posts with text overlaying the image.

Methodology

Participants and Design: A total of 238 participants (37% male, mean age 41.78) were recruited via Prolific. The study used a 2×2×2 between-subjects design, with participants randomly assigned to one of eight conditions. The independent variables were Image Emotional Valence (positive vs. negative), Text Emotional Valence (positive vs. negative), and Text Positioning (below the image vs. overlaying the image).

Stimuli and Procedure: The experimental stimuli were derived from a Save the Children campaign aimed at combating child malnutrition in Sudan. An image depicting a child crying was used for the positive emotional valence image

manipulation, while an image depicting a smiling child was used for the negative emotional valence image.

For the negative emotional valence text manipulation, we used:

“Children are dying of malnutrition: act now to end their struggle! Your donations directly contribute to stopping death. #Sudan #SaveTheChildrenSupport”.

For the positive emotional valence accompanying text manipulation, we used the text:

“Children are saved from malnutrition: act now to foster their growth! Your donations directly contribute to saving lives. #Sudan #SaveTheChildrenSupport”.

Text positioning was manipulated by placing the accompanying text either below the image or overlaying it. The dependent variable was: Behavioral Measure of Ad Engagement – BMAE (4 items, Likert type 1-5, $\alpha = .90$; Buzeta et al. 2023).

Results

Manipulation check. Manipulation checks indicated that the stimuli have been interpreted by participants as intended by researchers. As predicted, participants rated the image with a negative emotional valence as the image depicting a child crying [4,57 vs. 1,70; $t(235) = 24,291$ $p < 0,01$], and the image with a positive emotional valence as the image depicting a child smiling [1,20 vs. 4,15; $t(235) = -27,350$ $p < 0,01$]. Also, participants rated the text with a negative emotional valence as a text conveying negative emotions [3,71 vs. 2,64; $t(236) = 7,688$ $p < 0,01$] and the text with a positive emotional valence as a text conveying positive emotions [2,67 vs. 3,65; $t(236) = -6,174$ $p < 0,01$]. To test our first hypothesis, we conducted a two-way ANOVA. The results showed significant main effects of image emotional valence [$F(1, 234) = 5.45$, $p < .05$, $\eta^2 = .023$], and text emotional valence [$F(1, 234) = 4.65$, $p < .05$, $\eta^2 = .019$], and a significant interaction [$F(1, 234) = 12.72$, $p < .001$, $\eta^2 = .052$]. Specifically, BMAE was higher in the case of emotional valence mismatch $M = 2.76$, $SD = 1.04$ than in emotional valence match $M = 2.23$, $SD = 1.08$; $t(236) = 3.84$, $p < .001$. The results corroborate H1, indicating that discrepancies in emotional tone between the text and the image result in heightened levels of engagement. To determine the most effective text positioning for social media engagement, we compared BMAE scores across two conditions: text positioned below the image vs. text overlaying the image. The results revealed that participants experienced significantly higher levels of BMAE when the text was positioned below the image compared to above it [$M_{\text{text below}} = 2.72$, $SD = 0.1$ vs. $M_{\text{text overlaying}} = 2.31$, $SD = 0.1$; $t(236) = 2.96$ $p < .05$]. This suggests that the placement of text can influence participant responses, with text positioned below the image potentially exerting a stronger impact on BMAE confirming H2.

Conclusions

The findings support our hypotheses, showing that NPO social media posts with different emotional valences between image and text generate higher engagement than those with matching valences. Additionally, posts with text separated from the image result in more engagement than text overlaid on the image. This aligns with cognitive load theory (Chandler & Sweller, 1991). Text on the image raises cognitive load due to information redundancy (Mayer, 2009). Placing text below allows separate processing of visual and verbal information, improving retention and engagement.

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