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The Effect of Image Content and Text Similarity on Brand Narratives Sharing

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Although images are increasingly used in social media brand posts, it remains still unknown what type of images generate the most compelling narratives. The present research analyzes if and how the image content, and text similarity in the social media post affects consumer sharing of brand narratives.

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EXTENDED ABSTRACT

Over *40* billion images have been shared to date on social media platforms. Despite the growing interest in visual driven content, *66%* of brands still do not understand what type of images contributes to a compelling narrative (Buffer 2019). Therefore, it is crucial to analyze the impact of images in social media posts and their impact on consumer sharing.

Inspired by visual semiotics theory (Kress and van Leeuwen 2006), we propose that narrative images, that is images portraying an action among depicted objects, have a positive effect on consumer sharing. Social media platforms allow for consumption of narrative images which often include textual information. While including both image and text in the same brand message may provide the viewer enough information to understand the message (Villarroel Ordenes 2019), we suggest that viewers may feel overwhelmed by the amount of text in the caption and within the image when exposed to a narrative image. In line with this, we propose that narrative images have a negative effect on consumer sharing when the caption and text within the image are similar.

Sharps and Nunes (2002) show that images portraying relationships among visual elements are easier to process verbally (e.g., "moving to the right", "looking to the horizon"), and consequently are more feature-intensive than images not including relationships. Accordingly, we propose that images showing action (narrative) are more likely to be processed in a piecemeal fashion while, an image which is not showing relationships would be processed in its entirety, as a gestalt (Sharps and Nunes 2002). Piecemeal interpretation mediates the effect between narrative images and consumer attitude/sharing.

Our first study examines the effects of narrative (vs. conceptual) images, similarity between the caption and text within the image, and their interactions, on message sharing. We collected *6,187* social media posts from Twitter. We operationalize consumer message sharing as the number of retweets. Using extant definitions of the image type (Kress and van Leeuwen 2006), we asked two research assistants to annotate the images as narrative (i.e., showing unfolding actions and events) or conceptual (i.e., stable, static, and timeless). We computed the mean value provided by the two coders and used it as our independent variables (r = .69). To measure text similarity between the caption and the text within the image we used the Jaro–Winkler distance metric which captures the similarity between two string sequences. In line with previous research, we account for several control variables.

Our model for share is:

$$\#\,Share_i = exp(\alpha_0 + \beta_1 * \#Share_{i-1} + \beta_2 * Narrative_i + \beta_3 * TextSimilarity_i + \\ + \beta_4 * Narrative_i * TextSimilarity_i + \tau_i \\ + \beta_n \theta_n + \alpha_k + \epsilon_{ij}),$$

Where τ_i indicates the control residuals from the control functions (they allow to account for content manager decisions in previous posts; Villarroel Ordenes et al. 2019), represents the control variables and their respective coefficients, and are the brand fixed effects and error term, respectively. Our results confirm that consumers share significantly more narrative images than conceptual ones ($\beta_{Narrative}$=.97, *p*<.001). We also find support for our prediction that when narrative images are paired with highly similar caption and text

within the image, the effect on consumer sharing becomes negative ($\beta_{Narrative \times TextSimilarity}$=-.24, *p*<.001).

Our second Study examines how the content of the image in a Twitter post influences attitude towards the Tweet, consumer sharing, and piecemeal interpretation. One hundred Amazon Mechanical Turk participants (M_{age}=41.21 years, SD=12.15; 59% female), paid $.40, participated in this image content (conceptual vs. narrative) between-subject experiment.

The Nike Tweet portrays a basketball player and the caption for both Tweets was kept constant. The image presented the basketball player either posing (conceptual) or tossing a basketball (narrative). Participants were exposed to one of the Tweets, then expressed their willingness to share the Tweet and their attitude towards the Tweet. We also measured piecemeal interpretation and whether the image was perceived to be conceptual or narrative (same as in Study 1). As control variables, we measured perceived quality and involvement with the Tweet. Our results show that participants perceived the image where the basketball player was simply posing as conceptual (M=2.45, SD=1.78) and the image where the basketball player was tossing the ball as narrative (M=4.14, SD=1.65). The two images did not differ in terms of perceived quality ($t_{(98)}$=-1.02, NS) and involvement ($t_{(98)}$=-.69, NS).

An independent sample t-test of the means across visual patterns that participants exposed to the narrative image (M=5.26, SD=1.80) express a more favorable attitude toward the post than participants exposed to the conceptual image (M=4.54, SD=1.48) ($t_{(98)}$=-2.19, *p*<.05). Unexpectedly, an independent sample t-test of the means across visual patterns reveals a non-significant difference in terms of sharing ($t_{(98)}$=.78, *NS*). An independent sample t-test of the means across image content reveals that participants exposed to the narrative image (M=5.98, SD = 2.16) interpret the image in a piecemeal fashion more than participants exposed to the conceptual image (M=4.08, SD=1.70) ($t_{(98)}$=-2.32, *p*<.05). To determine if piecemeal interpretation drives the relationship between the image content (1=narrative, 0=conceptual) and the dependent variable of attitude toward the Tweet, we conduct a mediation analysis using Model 4 (10,000 bootstrap samples) in the SPSS PROCESS macro (Hayes and Preacher 2014). The bootstrapping technique for conditional indirect effects indicates mediation, because the 95% confidence interval (CI) for piecemeal interpretation does not include zero when we consider the difference between conceptual and narrative image (conditional indirect effect=.25, Boot SE=.15; 95% CI: .02, .58).

The findings of our study provide insight into the role of images and text in social media conversations by making three important contributions. First, this study demonstrates that narrative images are shared more by consumers than conceptual images. Second, we advance knowledge on consumer sharing of brand narratives by considering how similarity between text in the caption and within the narrative image affects consumer sharing. Third, our results show that the positive effect of narrative images on consumer responses is driven by piecemeal processing of the visual information in the Tweet.

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