



Calls to action and user engagement: The role of visual and verbal requests in nonprofit advocacy on Facebook

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ARTICLE INFO

Keywords:

Call to action
Visual requests
Verbal requests
Social semiotics
Nonprofit organizations
Advocacy
Social media

ABSTRACT

A common strategy to boost user engagement on social media is to incorporate requests into posts. While previous research has focused on the effects of direct verbal requests (i.e., commands), the role of subtler, indirect verbal and visual requests remains underexplored. We address this gap through a quantitative content analysis of 2250 Facebook posts from the 100 largest U.S. nonprofit organizations. Using a social semiotics lens, we argue that both verbal and visual modes can convey requests, although each relies on distinct semiotic resources. The influence of requests on user engagement may thus be shaped by general semiotic principles applicable to both modes as well as modality-specific principles. In line with our assumptions, users prefer posts that clearly reveal a charity's persuasive intent through verbal and visual requests (general principle of clarity). Moreover, posts fostering clarity by exclusively featuring either direct or indirect verbal requests are associated with greater user engagement compared to those combining both types. However, users are more responsive to indirect than direct verbal requests (verbal principle of nuance) and tend to be distracted from the verbal text when posts include a direct gaze image (visual principle of captivation).

1. Introduction

Social media offer an unprecedented means for nonprofit organizations to disseminate their messages and interact with a vast number of stakeholders at low cost (Brengarth & Mujkic, 2016; Guo & Saxton, 2018; Li et al., 2021; Raja-Yusof et al., 2016). Given its status as the world's most popular social media platform, it is unsurprising that many nonprofit organizations focus their social media activities on Facebook (Li et al., 2022; Statista, 2022). In fact, an overwhelming 84% of nonprofit organizations worldwide use it to reach their stakeholders (Nonprofit Tech for Good, 2019). Despite Facebook's unparalleled outreach potential, many of these organizations still struggle to engage users effectively and motivate them to like, share, or comment on posts (Li et al., 2022; Tao et al., 2021).

One common strategy intended to boost user engagement involves embedding requests – also known as calls to action – in Facebook posts. Previous research indicates that requests are featured in 10% (Saxton & Waters, 2014), 44% (Bünzli & Alizadeh-Afrouzi, 2024; Campbell & Lambright, 2020) and even 71% (Denq, 2024) of nonprofit posts on Facebook. Requests prompt users to take specific actions, such as clicking a link, sharing personal experiences on a topic, or making a

donation (Oltra et al., 2021; Schultz, 2017). Verbal requests vary in their directness, that is, in the extent to which they render the message sender's intention transparent (Dillard, 2014). Whereas direct requests explicitly spell out the desired action using imperatives (e.g., "Click on this link!" or "Donate now!"), indirect requests are more subtle and commonly embedded within questions or suggestions (e.g., "Are you interested in volunteering?" or "Consider making a donation") (Brown & Levinson, 1987; Jenkins & Dragojevic, 2011).

Previous research has focused almost exclusively on exploring the effects of *direct* verbal requests on user engagement. While direct verbal requests have been shown to correspond with enhanced user engagement in commercial marketing (Moran et al., 2020; Oltra et al., 2021; Schultz, 2017), they appear to have the opposite effect in political communication (Amit-Danhi & Shifman, 2022) and a mixed effect in nonprofit advocacy (Bünzli & Alizadeh-Afrouzi, 2024; Saxton & Waters, 2014).

Taken together, previous studies present an inconsistent picture regarding the effectiveness of direct verbal requests. Moreover, it remains largely unclear whether nonprofit organizations should opt for direct or indirect requests in their Facebook posts. We therefore ask: Are users more responsive to directness in nonprofit Facebook posts, or do

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they engage more with implicit requests? And to what extent does the visual portion of a Facebook post influence user reactions to verbal requests? Drawing on social semiotics theory, this study is based on the premise that both verbal and visual modes can express requests and that their influence on engagement is shaped by general semiotic principles applicable to both modes as well as modality-specific principles operating simultaneously (Kress & van Leeuwen, 2020).

To better understand how visual and verbal requests influence user engagement with nonprofit posts, we conducted a quantitative content analysis. The analysis included a sample of 2250 Facebook posts published by nonprofit organizations on the Forbes' Top 100 Charities list. In the sections that follow, we will elaborate on the concept of user engagement and its measurement on Facebook. Next, we will introduce social semiotics theory and explain how the verbal and visual modes convey requests. We will then outline how these requests may influence user engagement on Facebook.

Overall, this study advances research in organizational communication by being one of the first to explore the influence of verbal request directness on user engagement and by providing an in-depth analysis of the interplay between visual and verbal message elements. Given the widespread use of requests in nonprofit advocacy, we believe our findings are relevant not only to nonprofit organizations' Facebook communications but also to their broader social media efforts.

2. Literature review

2.1. User engagement

Due to their ability to reach large audiences at low cost, social media platforms such as Facebook play a fundamental role in helping nonprofit organizations achieve their mission by raising awareness of their cause, securing donations, recruiting volunteers, and building strong relationships with the public (Xu & Saxton, 2019). While these goals are typically achieved through long-term efforts, Facebook offers unique real-time indicators of how effectively a nonprofit is attaining them. These indicators, commonly referred to as "user engagement", measure the extent to which people interact with a nonprofit by liking, commenting on, or sharing its content (Amit-Danhi & Shifman, 2022; Saxton & Guo, 2020; Saxton & Waters, 2014; Smith, 2018).

Engagement metrics can be ordered hierarchically based on the level of commitment they require (Kim & Yang, 2017). Likes rank at the bottom of the engagement hierarchy, as they require the least commitment and involve only a single click. As such, they provide a convenient way to express support for a Facebook post without verbal expression (Abitbol & Lee, 2017). To give users more nuanced options for conveying their feelings about a post, Facebook introduced an extension to the like button in the mid-2010s. This update added six emoji reactions—Love, Care, Haha, Wow, Sad, and Angry—to complement the traditional like reaction (Facebook, 2016; Jost et al., 2020; News, 2021). Comments are classified at an intermediate level of engagement. When a user comments on a post, the post briefly appears on their network's news feed, but is soon replaced with newer content (Kim & Yang, 2017; van Dijck, 2013). Sharing a post represents the highest level of engagement. A shared post not only appears in the news feed of the user's network but also becomes part of their profile page, thereby contributing to their online self-presentation (Kim & Yang, 2017; van Dijck, 2013).

User engagement is a content-related success metric and, accordingly, is influenced by the messages that nonprofit organizations post on social media. This inevitably raises the question: What message features are most effective in eliciting likes, comments, and shares?

Saxton and Waters (2014) have long asserted that "more attention needs to be placed on call-to-action messages" (p. 294), given their prevalence in nonprofit posts on social media as well as their potential to elicit engagement. Employing social semiotics theory, we propose that requests can be conveyed both verbally and visually and that their

influence on user engagement is shaped by both general and modality-specific semiotic principles operating simultaneously.

2.2. Verbal and visual requests

Social semiotics theory provides a valuable framework for analyzing the role of requests in user engagement with nonprofits' posts on Facebook. The theory focuses on how meaning is created across different modalities and how recipients interpret and respond to these meanings (Bateman, 2014; Kress & van Leeuwen, 2020; Royce, 2015). Accordingly, it considers both meaning-making (i.e., the construction and organization of meaning from signs) and sense-making (i.e., the interpretation and processing of signs) (Höllerer et al., 2018; Kress & van Leeuwen, 2020; Rouleau, 2005).

Social semiotics theory emphasizes that meaning is created through various modes of communication, which are defined as socially constructed and culturally shaped semiotic resources (Kress, 2010). While all modes share basic functions – representing social reality and conveying relationships between the viewer and the content – each mode draws on its modality-specific resources, leading to substantial differences in how these functions are realized (Höllerer et al., 2018). Therefore, a key tenet of social semiotics is that different modes can convey similar meanings, but each does so in a unique way (Bateman et al., 2017; Kress & van Leeuwen, 2020).

This also applies to the realization of requests in the verbal and visual mode. Requests, also known as calls to action, are *prompts* designed to get an immediate response from the audience (Chae, 2021). In the verbal mode, requests are realized by asking or instructing the audience to perform a specific action (Amit-Danhi & Shifman, 2022). Such actions can involve asking users to read an article (e.g., "click here to read our article about topic X"), to share personal experiences (e.g., "let us know how you celebrate Christmas"), or supporting the nonprofit organization (e.g., "donate now") (Lovejoy & Saxton, 2012).

Verbal requests vary in their directness, that is, in the extent to which they make the message sender's intention transparent (Dillard, 2014). Whereas direct requests ask the audience to perform a specific action using imperatives (e.g., "click here" or "donate now") (Brown & Levinson, 1987), indirect requests soften the actual request by phrasing it as a question or suggestion (e.g., "are you interested in volunteering?" or "please consider donating") (Brown & Levinson, 1987). In contrast, not making any request leaves the interpretation of the sender's intentions entirely up to the recipients.

The visual mode conveys requests through gazes (Kress & van Leeuwen, 2020; Macken-Horarik, 2004). When a depicted person gazes directly at the viewer, they convey a visual "hey you", demanding that the viewer engage in an (imaginary) relationship with them (Kress & van Leeuwen, 2020; Valentini et al., 2018). Since a direct gaze serves as a call for attention, it is commonly considered the visual equivalent of a command and is therefore defined as a direct request (Kress & van Leeuwen, 2020; Macken-Horarik, 2004; Palanica & Itier, 2012; Valentini et al., 2018).

A depicted person looking away from the viewer exhibits an averted gaze. With an averted gaze, the person signals a lack of interest in establishing contact with the viewer and instead offers themselves as an object for contemplation (Kress & van Leeuwen, 2020; Valentini et al., 2018). Because viewers are not asked to interact with the depicted person, an averted gaze is comparable to a verbal statement that makes no request at all. Table 1 provides an overview of the various verbal and visual requests.

Thus, while both the verbal and visual modes can convey requests, each draws on its unique semiotic resources for meaning-making. This raises a fundamental question about the sense-making of requests: What are the commonalities and modality-specific differences in how verbal and visual requests are processed? Drawing on social semiotics, we identify a general principle governing the sense-making of both visual and verbal requests, along with two mode-specific principles.

Table 1
Different types of verbal and visual requests.

	Direct requests	Indirect requests	No request
Verbal	Command: conveyed through imperatives (e.g., sign up as a volunteer now!")	Invitation: conveyed through questions or suggestions (e.g., "are you interested in volunteering?")	No call to action is included in the text (e.g., "Last year, we had 100 new volunteers")
Visual	Direct gaze: a depicted person looks at the viewer	–	Averted gaze: A depicted person looks away

2.3. General principle of clarity

Social semiotics theory offers valuable insights into the factors that facilitate effective sense-making, with clarity of meaning acknowledged as an important principle (Liu, 2024; Strand, 2013; Sun & Liu, 2023; Ulrich, 2001; Wagner et al., 2020). Whether communicated verbally or visually, clarity enhances comprehension and increases the likelihood that the recipient's interpretation aligns with the sender's intent (Baur & Prue, 2014; Boyd & Martin, 2022; Kucuk, 2015; Pantaleo, 2017; Saeed et al., 2024). Previous research further indicates that clear communication enhances persuasion by stimulating greater empathy toward characters in a video (Arora & Sagar, 2023), fostering more favorable attitudes toward an organization (Kim & Bae, 2016), improving message perceptions, and increasing sales (Chen et al., 2007).

In advocacy contexts, clear communication involves presenting the sender's motives and intentions transparently and unambiguously. One way to achieve this is by incorporating requests into advocacy messages, as they clearly signal an organization's desire to actively involve its audience in its mission (Bünzli & Alizadeh-Afrouzi, 2024; Guidry et al., 2014; Ng, 2020). Given the overall positive influence of clear communication on sense-making and persuasion, we anticipate a similar effect for requests on user engagement. Specifically, we hypothesize that posts featuring verbal and visual requests will receive more likes, comments, and shares than posts without requests.

H1 (verbal requests). Facebook posts containing verbal requests are associated with greater user engagement than those containing no verbal requests.

H2 (visual requests). Facebook posts containing visual requests are associated with greater user engagement than those containing no visual requests.

The clarity principle may also influence how people respond to combinations of different verbal requests. Posts containing verbal requests may include: 1) only direct calls to action, 2) only indirect calls to action, or 3) a combination of both. Combining different types of verbal requests is akin to sending "mixed signals". Pairing assertive elements with more inviting ones creates ambiguity, leaving the audience uncertain whether the message is intended as a command or merely a suggestion (Sohn & Edwards, 2018). Therefore, the clarity principle is best met when requests are communicated consistently and uniformly. This leads us to posit the following hypothesis:

H3 (verbal requests). Facebook posts containing exclusively direct or indirect verbal requests are associated with greater user engagement than posts that include both direct and indirect verbal requests.

Likewise, the clarity principle may apply to visual requests. Images can depict: 1) only individuals who make direct eye contact with the viewer, 2) only individuals who look away, or 3) one or more individuals looking directly into the camera and others who avert their gaze. Combining direct and averted gazes constitutes a form of mixed signals, as some of the depicted individuals imply that they want "something from the viewers" (Kress & van Leeuwen, 2020, p. 118), while others

convey that they are not seeking any interaction with the viewers. Here again, the clarity principle suggests that messages are most persuasive when they feature either exclusively direct gazes or exclusively averted gazes. With regard to user engagement, we therefore anticipate the following:

H4 (visual requests). Facebook posts featuring only direct gazes or only averted gazes are associated with greater user engagement than posts depicting both direct and averted gazes.

Thus far, we have explored how the principle of clarity may shape user responses to both verbal and visual requests. However, as noted earlier, the visual and verbal modes differ in how they convey requests. These differences are likely to influence sense-making and user engagement with verbal and visual requests, respectively. We will now examine such mode-specific principles.

2.4. Verbal requests: principle of nuance

The structured syntax of the verbal mode, combined with its sequential information structure and comparatively low degree of polysemy, makes it highly effective for conveying meaning in a precise, differentiated, and balanced manner (Geise & Baden, 2015; Kress, 2010; Meyer et al., 2018). Consequently, *nuance* emerges as an important modality-specific principle through which the verbal mode facilitates sense-making (Meyer et al., 2018). Nuanced communication involves fine-tuning the tone, intensity, and phrasing of a message to ensure that it is neither overly blunt, obtrusive, or overwhelming (Brown & Levinson, 1987). These adjustments, in turn, are likely to promote message processing and elaboration.

In advocacy contexts, nuanced communication entails being persuasive while respecting people's fundamental desire for respect and freedom of choice. Verbal requests differ in the extent to which they adhere to that principle. By overtly attempting to impose certain choices on the audience, direct requests show no obvious concern for the needs of the audience (Dillard, Wilson, Tusing, & Kinney, 1997). As a result, direct requests are the type of request posing the greatest threat to people's freedom of choice (Brown & Levinson, 1987). Because indirect requests are more subtle and considerate of the addressees' feelings and preferences, they are comparatively less face-threatening and confrontational than direct requests (Blum-Kulka, 1987; Brown & Levinson, 1987; Ruytenbeek, 2020). Indirect requests consider people's need to make their own choices, while also providing a hint about the sender's intentions.

Failure to respect people's autonomy has been shown to result in adverse effects (Brown & Levinson, 1987; Jenkins & Dragojevic, 2011; Lerman, 2006). Negative consequences include audiences losing trust in an organization, refusing to engage in discussions, or resisting persuasion (Theunissen, 2019). A nascent line of research shows that users are more responsive to online communication when message senders acknowledge their need for autonomy. When addressed in an autonomy-supporting and appreciative manner, users not only perceived interactions as more pleasant (Hu et al., 2018; Kumar et al., 2022), but were also more likely to write replies in technical (but not political) online groups (Burke et al., 2007), complete online onboarding processes (Wang, Wang, et al., 2018) and engage with social media content (Bünzli & Alizadeh-Afrouzi, 2024).

Based on these considerations, we anticipate that indirect requests will receive more likes, comments, and shares than direct requests.

H5 (verbal requests). Facebook posts containing indirect requests are associated with greater user engagement than those containing direct verbal requests.

2.5. Visual requests: principle of captivation

The spatial information structure of the visual mode, combined with

its ability to convey meaning instantly and at a glance, makes it particularly effective in capturing audiences (Geise & Baden, 2015; Kress & van Leeuwen, 2020; Meyer et al., 2018). As such, captivation emerges as an important modality-specific principle through which the visual mode facilitates sense-making (Meyer et al., 2018). Captivating communication leverages salient images to draw audiences into the message, fostering deeper message processing and elaboration (Bateman, 2014; Cian et al., 2014). In persuasive contexts, the captivation principle is often applied through direct gaze images, which are recognized for their attention-grabbing potential and ability to sustain recipients' interest (Adams & Kleck, 2005; Baberini et al., 2015; McKay et al., 2021).

However, the presence of direct gaze images appears to reduce verbal information processing. Previous research suggests that a direct gaze creates a distraction effect, leading recipients to engage less with the accompanying text (Casado-Aranda et al., 2020; Straub, 2008). While direct gaze images increase emotional arousal and dwell time on the depicted person's face, they decrease the time and depth of verbal text processing, as well as the memorability of the verbal message (Sajjacholapunt & Ball, 2014; Wang, Wang, et al., 2018). As a result, viewers tend to be less sensitive to variations in the verbal text (Bünzli et al., 2024; Kergoat et al., 2017). In the context of our study, we expect the presence of a direct gaze to mitigate the influence of different types of verbal requests (direct, indirect, or both) on user engagement. In contrast, the absence of a direct gaze prompts recipients to allocate their attention more evenly between the image and the text (Sajjacholapunt & Ball, 2014; Wang, Wang, et al., 2018). This more balanced distribution of cognitive resources presumably makes recipients more sensitive to variations in the verbal message portion. Therefore, in messages featuring only averted gazes, we expect that variations in the type of verbal request will have a comparatively greater impact on user engagement. This leads us to the following hypothesis:

H6. In the presence of a direct gaze, user engagement is less influenced by the type of verbal request (direct only vs. indirect only vs. both requests).

3. Method

3.1. Sample

To strengthen the generalizability of our findings, our objective was to examine a broad range of nonprofit organizations. Following previous studies (Buenadicha-Mateos et al., 2019; Lentz et al., 2021; Zhang et al., 2023), we created our sample based on Forbes' "America's Top 100 Charities" list. The list encompasses nonprofit organizations from 11 different sectors, including environmental advocacy, health advocacy, and international humanitarian advocacy. We used the 2022 edition of the list, as it was the latest available at the time of our study. The ranking reflects the fiscal year 2022 and is based on the private donations each charity received in that period.¹ For each charity, we checked for the presence of a U.S.-based Facebook page (using the Facebook search function, as some internationally operating charities have pages based in countries other than the U.S.) and ensured that their content was accessible within the specified time frame. A total of 84 out of 100 organizations met these criteria and were included in the final sample.²

¹ While total revenues are reported for each charity, other sources of revenue such as government grants or earnings from services are not considered for the ranking.

² The nonprofit organizations varied in activity levels: the Boys & Girls Clubs of America, Houston Food Bank, MAP International, and Matthew 25: Ministries each published only one post that met our criteria, while Mayo Clinic published 233 posts.

3.2. Data collection

The data were collected in summer 2023. Facebook posts were gathered from the charities' Facebook pages over a 12-week period from January 16 to April 9, 2023. We excluded posts with visual images other than photographs (e.g., drawings, charts), multiple photos, or not showing a human. The final sample comprised 2250 Facebook posts. A research assistant manually scraped the posts and stored the URL of each post in our database.

3.3. Coding

The Facebook posts were coded for three types of variables: *control variables*, *predictor variables* and *outcome variables*. The control variables included the length of the post (by word count) as well as the number of links and hashtags for each post.

The verbal predictor variables captured the number of direct requests and indirect requests (see Table A.1 in the Appendix). The operationalization of both verbal request types was based on Brown and Levinson's theory of politeness (1987) and was successfully applied in a previous study (Bünzli and Alizadeh-Afrouzi, 2024). Direct requests are defined as directives conveyed through imperatives, with common examples including commands such as "Volunteer now", "Share this post with your peers", or "Make a donation today".³ For other studies utilizing the same approach to code direct requests, see Amit-Danhi and Shifman (2022), Moran (2020), and Schultz (2017).

Indirect requests are defined as statements that include an introductory part to soften the actual request. Examples of indirect requests encompass questions and statements such as "Are you interested in volunteering?", "Could you share this post with your friends?", or "Just like Daniel, you can help save lives through your donation".⁴ Previous content analyses have assigned indirect requests to a call-to-action category labeled "Learn to Help", which encompasses suggestions on how individuals can support an organization (Lovejoy & Saxton, 2012). In this study, we operationalize indirect requests following the approach used in several experimental and survey-based studies (Chia & Kaschak, 2024; Ruytenbeek, 2020; Savić et al., 2021).

The visual predictor variables focused on visual requests and were operationalized based on Kress and Van Leeuwen's (2020) visual grammar theory (see Table A.1 in the Appendix). The operationalization thereof involved coding the number of depicted individuals making direct eye contact with the viewer (i.e., direct gaze = visual request) and the number of individuals looking away (i.e., averted gaze = no request) (Kress & van Leeuwen, 2020).⁵ A similar coding approach has been used in other content analyses, including those by Aliakbari & Kamalvand (2023), Bell & Milic, 2002, Dhanesh et al. (2022), and Wang et al. (2023).

Finally, user engagement was the outcome variable of interest and was measured by a count of the number of likes, emoji likes (i.e., love, care, haha, wow, sad, angry), comments, and shares for each Facebook post (Smith, 2018). Importantly, not all measures of user engagement were used in the subsequent analyses. Haha emoji-likes, wow emoji-likes, sad emoji-likes, and angry emoji-likes were excluded due to their infrequent use. On average, a Facebook post only received $M = .9$ haha emoji-likes ($SD = 5.2$), $M = 1.3$ wow emoji-likes ($SD = 5.5$), $M = 6.8$ sad emoji-likes ($SD = 83.7$), and $M = 3.7$ angry emoji-likes ($SD = 29.3$).

³ Another example of a direct verbal request ("Join our mission") can be found in this post: click here.

⁴ Another example of an indirect verbal request ("You can support the disaster relief efforts with a donation at www.salarmy.us/3DEDJmK.") can be found in this post: click here.

⁵ An example of a post featuring an image with a direct gaze can be found here. An example of a post featuring an image with an averted gaze can be found here.

The codebook was developed in a multistep process. It was initially created by the first author and then tested and refined in three training sessions with the second author. In these sessions, we randomly selected two nonprofit organizations from the list and independently coded 20 of their Facebook posts. The posts did not duplicate the posts in the sample. Based on our discussions, coding instructions were specified and substantiated with examples. Particular attention was paid to identifying and specifying rules for difficult or ambiguous cases.

The next step involved testing the extended codebook. Toward this end, the first author and a research assistant independently coded 100 posts from the sample. After coding, discrepancies were reviewed and discussed until 100% agreement was achieved for each variable.

Subsequently, the first author and the research assistant assessed intercoder reliability by randomly selecting another 100 posts from the remaining sample and independently coding them. In doing so, we relied on Riffe et al. (2014) who argue that an overlap of up to 20% of the data is permissible when evaluating intercoder reliability (see also Wang & Yang, 2020). The obtained intercoder reliability scores suggest a good level of agreement between the coders. For the verbal message portion, Krippendorff's Alpha was .98 for direct verbal requests and .85 for indirect verbal requests. For the visual message portion, Krippendorff's Alpha was .98 for direct gaze and .96 for averted gaze. After discussing and revising inconsistent codes, the agreed-upon dataset was kept and utilized for the data analysis. The research assistant then proceeded to code the remaining posts.

3.4. Analysis

To determine whether a significant relationship existed between requests and user engagement, we performed a series of multilevel negative binomial regression analyses using SPSS version 28 and the “generalized linear mixed models” function. Multilevel analysis was utilized to account for diversity in the sources of the posts, thus considering that the nonprofit organizations under scrutiny operate in different sectors. Accordingly, level 2 captured the sector-related variation (i.e., NPO sector). Level 1 captured the post-related variation (i.e., visual and verbal requests, type of request; length of post, number of hashtags, number of links, user engagement). Each model treated intercepts as random effects. Negative binomial regression⁶ was employed to accommodate overdispersion in user engagement variables (i.e., number of likes, love emoji-likes, care emoji-likes, comments, and shares). Over-dispersion means that the conditional variance exceeds the conditional mean. All five outcome variables were overdispersed across the predictor categories.

In a first step, we calculated the Intraclass Correlation Coefficient (ICC) for the unconditional models to determine whether there was sufficient variation in the outcome variables at the sector level (level 2). We observed significant variation at level 2 for the number of likes (31.5%, $p < .001$), love emoji-likes (39.5%, $p < .001$), care emoji-likes (39.4%, $p < .001$), comments (42.2%, $p < .001$), and shares (22.6%, $p < .001$). To examine our hypotheses and research questions, we ran three models and tested them for each of our outcome variables (i.e., 3 models $\times$ 5 outcome variables = 15 analyses in total).

The first model addressed H1 and H2 and analyzed whether the presence of verbal requests (0 = absent, 1 = present) as well as the presence of visual requests (0 = absent, 1 = present) affected user engagement. The length of the post, number of hashtags, and number of links were included as control variables and retained in all subsequent analyses.

⁶ Negative binomial regression has been described as a preferred procedure for the analysis of overdispersed count data such as the one in our study (e.g., number of likes, number of likes, love emoji-likes, care emoji-likes, comments, and shares) (O'Hara & Kotze, 2010; UCLA Statistical Methods and Data Analytics, n.d.).

The second model investigated H3, H4, and H5, assessing whether the consistency of requests in a post influences user engagement. For verbal requests, we created a variable with the following six categories: direct requests only, indirect requests only, mainly direct requests, an equal number of direct and indirect requests, mainly indirect requests, and no requests at all. For visual requests, the variable included the following categories: direct gaze only, mainly direct gaze, equal number of averted and direct gazes, mainly averted gaze, and averted gaze only.

The third model tested H6, which postulates an interaction effect between visual and verbal requests. To facilitate analysis and interpretation, we reduced the number of categories for both visual and verbal requests. The verbal request variable discriminated between the following four categories: direct requests only, mixed requests, indirect requests only, and no requests at all. The visual request variable includes the categories: direct gaze only, mixed gazes, and averted gaze only.

4. Results

The nonprofit organizations included in this study are the 100 largest U.S. charities, according to Forbes, and operate in 11 sectors. Table 2 shows considerable variation across these sectors in the number of posts during the data collection period. Collectively, NPOs in the international advocacy sector posted the most, with a total of 605 messages. In the same period, NPOs in the cultural sector posted only 4 messages on Facebook. Similarly, the number of likes, comments, and shares that posts received differed largely by sector. For instance, the range spans from an average of $M = 413.7$ likes for public broadcasting NPOs ($SD = 650.9$) to an average of $M = 2.2$ likes for education NPOs ($SD = 0.7$).

We posited that the presence of a verbal request (H1) would be associated with greater user engagement. The results are shown in Table 3. In line with our expectations, the presence of a verbal request was linked to significantly more likes ($b = .20$, $SE = .07$, $p = .003$) and shares ($b = .24$, $SE = .07$, $p < .001$). The findings thus lend support for H1.

H2 stated that visual requests in the form of direct gazes would be linked to greater user engagement. As indicated in Table 3, the presence of a visual request corresponded with more likes ($b = .44$, $SE = .07$, $p < .001$), love likes ($b = .42$, $SE = .08$, $p < .001$), care likes ($b = .51$, $SE = .10$, $p < .001$), and comments ($b = .35$, $SE = .09$, $p < .001$). The results hence support H2.

Drawing upon the principle of clarity, we hypothesized in H3 that users would reject messages combining different types of verbal requests, as such messages send mixed signals about the sender's intentions. The results largely confirm this prediction. Compared to Facebook posts containing no verbal request, messages containing both indirect and direct verbal requests showed a negative association with likes, love likes and care emoji likes. As indicated in Table 4, this effect occurs for all types of mixed request posts, including those that feature mainly direct requests, an equal number of direct and indirect requests, and mainly indirect requests. In line with our expectations, posts with only indirect requests received significantly more likes ($b = .68$, $SE = .11$, $p < .001$), love likes ($b = .37$, $SE = .15$, $p = .012$), care likes ($b = .52$, $SE = .17$, $p = .002$), comments ($b = .59$, $SE = .15$, $p < .001$), and shares ($b = .60$, $SE = .12$, $p < .001$). Similarly, posts containing only direct requests were associated with more shares ($b = .16$, $SE = .08$, $p = .037$) but fewer care likes ($b = -.26$, $SE = .11$, $p = .013$). Overall, the data support H3.

H4 predicted a similar effect, namely that images featuring both direct and averted gazes would be linked to decreased user engagement. However, the data did not support this assumption (see Table 4). Images seem to generally benefit user engagement as long as they feature a direct gaze from at least some of the depicted individuals. For instance, images in which all ($b = .45$, $SE = .24$, $p < .001$), a majority ($b = .56$, $SE = .28$, $p = .040$), or even half ($b = .60$, $SE = .27$, $p = .032$) of the depicted individuals make direct eye contact were associated with more love likes compared to images in which all individuals avert their gaze. This challenges the idea that consistency in visual requests enhances user engagement. As a result, we had to reject Hypothesis 4.

Table 2

Descriptive statistics of the posts and engagement variables by nonprofit sector.

NPO Type	Freq.	%	# Likes		# Love Emoji-Likes		# Care Emoji-Likes		# Comments		#Shares	
			Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
	2250	100.0	198.5	488.5	39.1	106.8	45.6	209.5	25.1	69.0	17.9	39.2
Cultural	4	0.2	299.0	210.6	83.8	67.3	13.5	2.5	14.0	11.7	72.0	51.3
Domestic Needs	417	18.5	242.4	664.5	43.2	107.0	69.2	279.2	16.8	43.4	19.6	45.0
Education	9	0.4	2.2	0.7	0.1	0.3	0.0	0.0	0.2	.4	1.8	1.4
Environment/Animal	49	2.2	107.8	113.2	21.6	35.4	10.9	21.5	9.7	18.0	13.7	23.6
Health	176	7.8	282.8	758.9	62.0	150.7	103.6	413.2	43.6	122.4	27.1	41.5
International Needs	605	26.9	120.3	340.5	17.1	53.2	45.5	205.9	8.3	27.1	12.7	34.0
Medical	587	26.1	179.5	336.7	45.3	114.1	37.7	121.7	15.0	38.3	15.8	30.2
Public Affairs	135	6.0	240.7	383.9	33.7	77.4	12.1	22.3	112.6	143.1	23.8	44.1
Public Broadcasting	181	8.0	413.7	650.9	85.4	178.7	18.1	58.4	65.3	92.4	32.1	61.6
Religious	49	2.2	43.7	172.0	5.8	16.5	3.6	10.1	4.5	14.9	4.0	6.0
Youth	38	1.7	45.2	32.5	11.6	15.0	1.8	2.1	3.4	4.0	6.7	9.7

Table 3

Mixed effects negative binomial regression models with outcome variables # of likes, love emoji-likes, care emoji-likes, comments, and shares.

Fixed effects	# Likes		# Love Emoji-Like		# Care Emoji-Likes		# Comments		#Shares	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
Verbal request (Reference: absent)										
Present	.20**	.07	.31	.09	-.06	.10	.06	.09	.24***	.07
Visual request (Reference: averted gaze)										
Direct gaze	.44***	.07	.42***	.08	.51***	.10	.35***	.09	.06	.07
N	2250		2250		2250		2250		2250	

Note. Number of hashtags, links, and words were entered into the analysis as covariates.

 $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.**Table 4**

Mixed effects negative binomial regression models with outcome variables # of likes, love emoji-likes, care emoji-likes, comments, and shares.

Fixed effects	# Likes		# Love Emoji-Like		# Care Emoji-Likes		# Comments		#Shares	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
Verbal request (Reference: absent)										
Only direct requests	.09	.07	.02	.09	-.26*	.11	-.10	.09	.16*	.08
Mixed: mainly direct requests	-.44	.24	-.50	.33	-.87*	.38	-.16	.34	.06	.28
Mixed: direct = indirect requests	-.15	.15	-.45*	.21	-.54*	.24	-.29	.21	-.07	.17
Mixed: mainly indirect requests	-.13	.24	-.56*	.34	-1.26***	.39	-.05	.34	.14	.28
Only indirect requests	.68***	.11	.37*	.15	.52**	.17	.59***	.15	.60***	.12
Visual request (Reference: averted gaze)										
Mixed: mainly averted gaze	.32	.06	.10	.09	.24	.10	.44	.09	.43*	.20
Mixed: averted = direct gaze	.62**	.19	.60*	.27	.66*	.31	.28	.28	-.07	.23
Mixed: mainly direct gaze	.31	.20	.56*	.28	.23	.32	.33	.29	-.23	.22
Only direct gaze	.47***	.17	.45***	.24	.56***	.28	.39***	.25	.07	.07
N	2250		2250		2250		2250		2250	

Note. Number of hashtags, links, and words were entered into the analysis as covariates.

 $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

To examine H5, we used the same models as in the analyses of H3 and H4 and conducted additional Least Significant Difference (LSD) post-hoc tests to determine whether indirect verbal requests would be more beneficial to user engagement than direct verbal requests. As

reported in Table 5, the presence of only indirect verbal requests in a Facebook post is associated with significantly more likes ($EM = 233.16$, $SE = 99.24$) and shares ($EM = 23.34$, $SE = 6.97$) as well as marginally more care emoji likes ($EM = 29.47$, $SE = 13.91$) and comments ($EM =$

Table 5

Least Significant Difference (LSD) post-hoc tests with outcome variables # of likes, love emoji-likes, care emoji-likes, comments, and shares.

	I: Indirect verbal requests only <i>EM (SE)</i>	J: Direct verbal requests only <i>EM (SE)</i>	I-J: Mean value difference <i>(SE)</i>	t	df	Significance level of the mean difference
# Likes	233.16 (99.24)	129.52 (54.15)	103.64 (48.71)	2.128	2237	.033
# Love Emoji-Like	37.37 (15.73)	26.40 (10.71)	10.97 (6.82)	1.608	2237	.108
# Care Emoji-Likes	29.47 (13.91)	13.52 (6.15)	15.95 (8.45)	1.887	2237	.059
# Comments	25.38 (12.22)	12.82 (6.00)	12.55 (6.78)	1.851	2237	.064
#Shares	23.34 (6.97)	15.01 (4.27)	8.33 (3.53)	2.361	2237	.018

Note. Number of hashtags, links, and words were entered into the analysis as covariates.

25.38, $SE = 12.22$), compared to the presence of only direct verbal requests (Likes: $EM = 129.52$, $SE = 54.15$, $t(2237) = 2.128$, $p = .033$; Shares: $EM = 15.01$, $SE = 4.27$, $t(2237) = 2.361$, $p = .018$; Care emoji likes: $EM = 13.52$, $SE = 6.15$, $t(2237) = 1.887$, $p = .059$; Comments: $EM = 12.82$, $SE = 6.00$, $t(2237) = 1.851$, $p = .064$). Hence, the results support H5.

H6 focused on the interplay between image and text. We posited that user engagement is less influenced by the type of verbal request in the presence of a direct gaze image. To examine the anticipated interaction effects, we conducted a series of pairwise Least Significant Difference (LSD) post-hoc comparisons using model three, as described in the methods section. An overview of the results is provided in Table 6, and a more detailed analysis for each outcome variable can be found in the Appendix (Tables A.2 to A.6).

For the sake of accuracy, we distinguished between direct-gaze-only images, mixed gaze images, and averted-gaze-only images. For each image category, we calculated contrasts for the different verbal request types (indirect only vs. direct only vs. mixed requests). This resulted in 15 contrasts for each image category.

Of the 15 verbal request contrasts that we calculated in the direct-gaze-only category, only four reached marginal significance. In the mixed-gaze category, only three contrasts were marginally significant. Conversely, of the 15 verbal request contrasts that we analyzed in the averted-gaze-only category, 10 were significant or marginally significant. These results are in line with our expectations, indicating that users are less sensitive to variations in verbal requests in the presence of a direct (vs. averted) gaze.

Notably, the pairwise comparisons were consistent with previous analyses, supporting the conclusion that indirect verbal requests are the most effective verbal messaging strategy. The most consistent pattern

was obtained for the contrast between indirect verbal requests and mixed verbal requests in the averted-gaze only category. As shown in Table 6, this contrast was significant for the number of likes (Contrast estimate: 98.85, $SE = 46.79$, $t(2235) = -2.113$, $p = .035$), love emoji likes (Contrast estimate: 17.92, $SE = 8.40$, $t(2235) = -2.133$, $p = .033$), and shares (Contrast estimate: 12.91, $SE = 5.054$, $t(2234) = -2.555$, $p = .011$), as well as marginally significant for care emoji likes (Contrast estimate: 15.02, $SE = 8.03$, $t(2235) = -1.871$, $p = .061$) and comments (Contrast estimate: 13.98, $SE = 7.33$, $t(2235) = -1.907$, $p = .057$). Overall, the results support H6.

5. Discussion

This research sought to gain deeper insights into how verbal and visual requests impact user engagement on social media. To achieve this, we conducted a quantitative content analysis of 2250 Facebook posts from the 100 largest U.S. nonprofit organizations. Our empirical inquiry was guided by a social semiotics perspective, which provides a valuable framework for understanding meaning-making and sense-making in multimodal messages. A key tenet of social semiotics is that similar meanings can be conveyed through different modalities. In this study, we focused on how requests are realized through the verbal and visual mode.

In the verbal mode, requests are expressed by asking or instructing the audience to perform a specific action (Amit-Danhi & Shifman, 2022). While direct verbal requests explicitly ask the audience for such action using imperatives, indirect requests soften the request by phrasing it as a question or suggestion. The text lacks a directive component when no request is made (Brown & Levinson, 1987).

Visual requests are conveyed through gazes. When a person is

Table 6

Pairwise Least Significant Difference (LSD) post-hoc comparisons with outcome variables # of likes, love emoji-likes, care emoji-likes, comments, and shares. Pairwise Least Significant Difference (LSD) post-hoc comparisons with outcome variables # of likes, love emoji-likes, care emoji-likes, comments, and shares.

Visual	Verbal		I-J: Contrast estimate (SE)				
	(I):	(J)	# Likes	# Love Emoji-Like	# Care Emoji-Like	# Comments	# Shares
Direct gaze-only image	Mixed requests	Indirect only	-158.70 (83.88)^	-13.34 (11.47)	-30.21 (16.93)^	-7.44 (7.95)	-6.10 (5.47)
		Direct only	-28.39 (26.66)	-5.85 (6.73)	-9.61 (5.31)^	2.75 (4.56)	.20 (3.34)
	Indirect only	Direct only	130.31 (73.79)^	7.49 (9.76)	20.60 (13.91)	10.19 (7.75)	6.30 (4.84)
Mixed gaze image	Mixed requests	Indirect only	-122.07 (83.15)	-37.20 (26.57)	-12.27 (9.27)	-17.70 (12.66)	-21.21 (12.30)^
	Mixed requests	Direct only	-45.96 (33.06)	-12.96 (8.54)	-3.69 (2.35)	-7.99 (4.62)^	-8.82 (4.58)^
	Indirect only	Direct only	76.12 (73.07)	24.24 (24.34)	8.58 (8.52)	9.71 (10.95)	12.40 (11.29)
Averted gaze-only image	Mixed requests	Indirect only	-98.85 (46.79)*	-17.92 (8.40)*	-15.02 (8.03)^	-13.98 (7.33)^	-12.91 (5.05)*
	Mixed requests	Direct only	-27.01 (17.36)	-10.70 (4.85)*	-2.08 (2.34)	-2.98 (2.12)	-3.71 (2.36)
	Indirect only	Direct only	71.84 (36.85)^	7.22 (5.48)	12.94 (7.14)^	11.00 (6.11)^	9.21 (4.17)*

Note. Number of hashtags, links, and words were entered into the analysis as covariates. Cells shaded in grey indicate significant or marginally significant contrasts. ^ $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Note. Number of hashtags, links, and words were entered into the analysis as covariates. Cells shaded in grey indicate significant or marginally significant contrasts. $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

depicted gazing directly at the viewer, they demand that the viewers notice them and enter into an imaginary relationship (Kress & van Leeuwen, 2020). This makes it a direct request for attention. In contrast, an averted gaze signals a lack of interest in attracting the viewer's attention and is thus comparable to a verbal statement that conveys no request.

While both modalities can convey requests, each relies on its own distinct semiotic resources. Consequently, we inferred that sense-making processes and subsequent user engagement responses may be shaped by general semiotic principles applicable to both modes, as well as principles specific to each modality. Fig. 1 provides a summary of the theoretical framework and the key findings of this study.

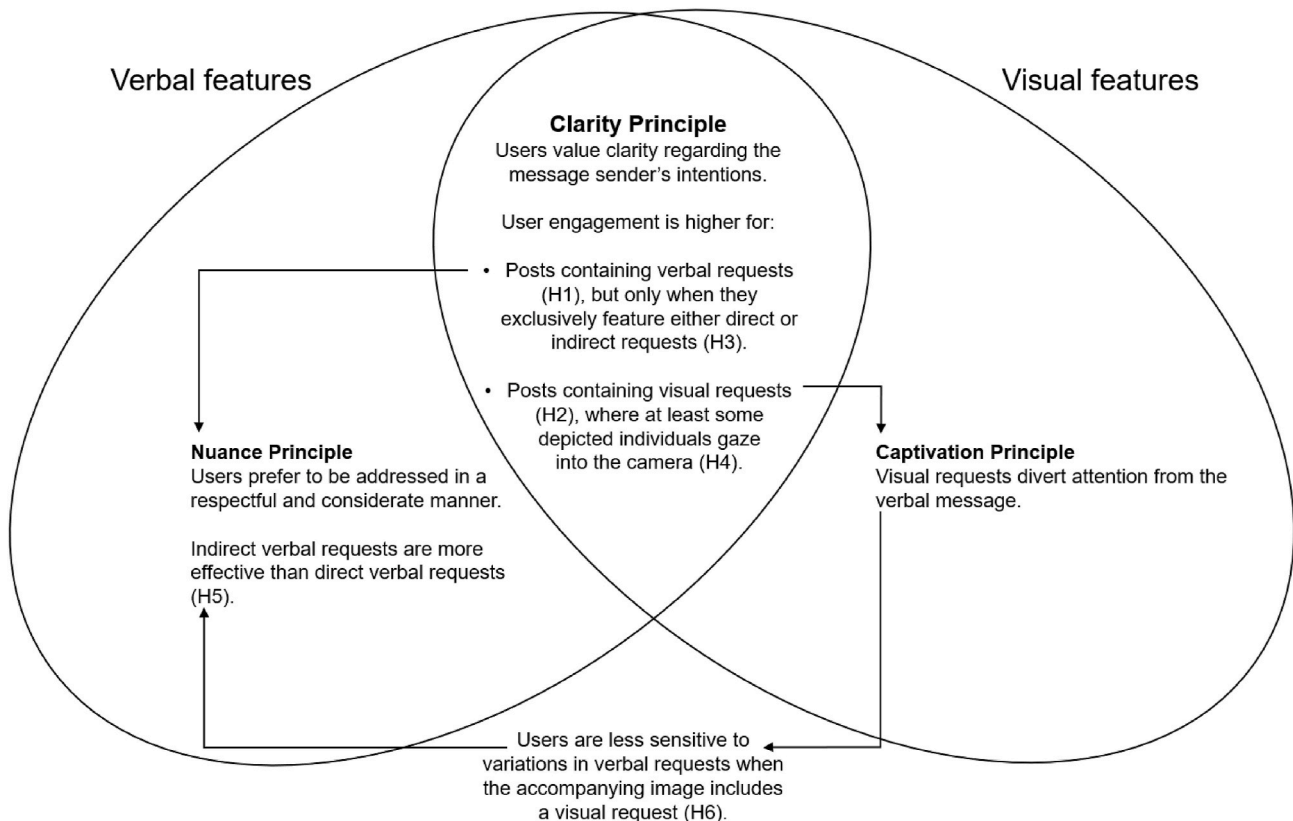
5.1. General principle of clarity of meaning

Clarity of meaning is recognized in the social semiotics literature as a crucial principle for sense-making across both modalities (Liu, 2024; Strand, 2013; Sun & Liu, 2023; Ulrich, 2001; Wagner et al., 2020). In advocacy contexts, clear communication involves conveying the sender's motives and intentions transparently and unambiguously. One way to achieve this is through verbal or visual requests, which explicitly signal an organization's desire to actively involve its audience in its mission (Bünzli & Alizadeh-Afrouzi, 2024; Guidry et al., 2014; Ng, 2020).

The findings regarding verbal requests largely supported our assumption. For one, the presence of verbal requests was positively associated with the number of likes and shares (H1). We further hypothesized that the clarity principle would lead people to reject messages that combine different types of verbal requests (H3), as these messages convey mixed signals about the sender's intentions (Sohn & Edwards, 2018). When it is unclear whether a message is intended as a command or as a mere suggestion, ambiguity arises. Consistent with our

expectations, posts containing only indirect requests were associated with more likes, love emojis, care emojis, comments, and shares than posts with no request at all. Likewise, posts containing only direct requests received more shares, although they received fewer care reactions. In contrast, Facebook posts that included both indirect and direct verbal requests were negatively associated with all engagement variables. These results collectively indicate that people strive for certainty about the sender's intentions and therefore appreciate posts containing requests, but only when it is evident that the requests are meant as either orders or suggestions. Overall, these results align with the *principle of clarity*, indicating that people generally avoid ambiguous or contradictory verbal signals (Chater & Loewenstein, 2016; Sohn & Edwards, 2018). Our findings are supported by research from the field of social psychology, indicating that people have a general aversion to ambiguity – a form of uncertainty (Han et al., 2011) that people experience when information lacks reliability, credibility, adequacy, or consistency (Simonovic & Taber, 2022). Although ambiguity is a natural part of human communication (Koniak & Cwalina, 2022), it is a psychological state that feels uncomfortable (Seo & Dillard, 2019; Stafford et al., 1996). This discomfort is explained by the increased cognitive load caused by ambiguity, which hampers cognitive efficiency in information processing (Han et al., 2011). Not surprisingly, ambiguity has been associated with negative persuasive effects (Seo & Dillard, 2019), causing people to be more hesitant or resistant to complying with advocacy messages (Simonovic & Taber, 2022). On social media, ambiguity is likely to decrease people's willingness to engage with posts (Gkikas et al., 2022; Wenzel, 2019).

For the visual mode, we hypothesized that the clarity principle would result in a preference for direct gaze images over averted gaze images (H2). By looking directly into the camera, the person depicted signals a desire for the viewer's attention. In line with our assumption, images were associated with consistently more user engagement when



they depict individuals looking directly into the camera. However, the results became somewhat more complex when considering that an image can feature multiple individuals, with some looking directly into the camera and others looking away (H4). Images seem to generally enhance user engagement, as long as at least some of the depicted individuals gaze directly at the viewer.

This finding suggests that recipients may be more tolerant of ambiguity in visual communication than in verbal communication. The visual mode structures information spatially while lacking a formalized syntax to organize it into logical sequences akin to sentences (Cohn, 2013; Geise & Baden, 2015; Meyer et al., 2018). As a result, visual meaning tends to be more polysemous than verbal meaning and open to multiple interpretations (Barthes, 1977; Bateman, 2014; Geise & Baden, 2015; Meyer et al., 2018). We suspect that recipients are aware of this aspect of visual meaning making and adjust their expectations for visual communication accordingly. Therefore, if at least one of the depicted individuals makes direct eye contact, it may provide sufficient clarity for recipients to interpret it as a personal address, inferring that they are expected to focus on the depicted social situation.

Overall, we found evidence supporting the clarity principle across both modalities, although its effects were more consistent with the verbal mode than the visual mode. These results suggest that nonprofit organizations' Facebook posts benefit from clearly conveying the sender's intentions, as this is associated with greater user engagement.

5.2. Verbal requests: principle of nuance

Because each mode realizes meaning through its own unique semiotic resources, we argue that modality-specific principles also play a role. For the verbal mode, we identified nuance as a key principle facilitating sense-making and subsequent persuasion. We posited that indirect verbal requests enable more nuanced communication by encouraging users to take action in a more subtle, respectful, and considerate manner compared to direct verbal requests (Blum-Kulka, 1987; Brown & Levinson, 1987; Ruytenbeek, 2020). As a result, we expected indirect verbal requests to generate greater user engagement than direct verbal requests (H6). Our findings support this assumption. Posts containing an indirect verbal request received significantly more likes and shares and marginally more care emoji likes and comments than those containing direct verbal requests.

Taken together, our findings on verbal requests support the notion that the clarity principle makes people more receptive to posts containing requests as long as it is clear whether these requests are intended as commands or invitations. Furthermore, our data demonstrate that indirect requests have a persuasive advantage over direct ones, likely because they align with the nuance principle by being more considerate and respectful (Fig. 1).

5.3. Visual requests: principle of captivation

For the visual mode, we identified captivation as a key modality-specific principle that facilitates sense-making and subsequent persuasion. In persuasive contexts, this principle can be invoked through the use of direct gaze images, which are known for their ability to grab attention and sustain recipients' interest (Adams & Kleck, 2005; Baberini et al., 2015; McKay et al., 2021). We further assumed that the presence of direct gaze images would diminish verbal information processing (Bünzli et al., 2024; Casado-Aranda et al., 2020; Kergoat et al., 2017; Straub, 2008). Our hypothesis was that images featuring a direct gaze divert attention away from the verbal message, making recipients less sensitive to variations in the type of verbal request. The results supported our prediction, revealing that users were least sensitive to

variations in verbal requests when the accompanying image featured mixed gazes, followed by images depicting only direct gazes. Users were most sensitive to variations in verbal requests when the posts featured only averted gazes.

Importantly, images in which some or all of the depicted individuals directly gaze at the viewer seemed to weaken the persuasive advantage of posts featuring only indirect verbal requests. This points to an interesting cross-modal effect, in which the visual captivation principle overshadows the persuasive impact of the verbal nuance principle (Fig. 1). We encourage future research to further explore this effect using experimental research designs.

While direct gaze images may alleviate concerns about phrasing the verbal text, they carry the risk of users overlooking important verbal information related to the post's advocacy. This could result in users liking, sharing, or commenting on a post without actually complying with the intended advocacy (e.g., reading an article, sharing a personal story, or making a donation). Such posts may be described as "high-engagement, low-compliance posts". Ideally, a post should achieve both high user engagement – evidenced by likes, shares, and comments – and a high compliance rate, meaning users follow through with the promoted behavior. An example of high online engagement but low message compliance occurs when people engage in virtual conspicuous donation behavior. This involves people performing highly visible but low-effort online actions (such as changing a profile picture, posing with charity merchandise, or publicly declaring support for a cause) for self-expressive reasons without actually intending to support the charity offline through volunteering or donating (Wallace et al., 2017). To better understand whether direct gaze images may lead to high-engagement, low-compliance posts, further research is needed.

Overall, our findings on visual requests suggest that users value clarity when at least some of the depicted individuals directly request their attention. However, the presence of direct gazes appears to reduce verbal text processing, making users less sensitive to variations in the verbal content.

5.4. Theoretical and practical implications

This study makes two main contributions to communication and social media research. First, our project is among the few to examine social media communication from a multimodal perspective. While previous research has mainly focused on verbal requests (Abitbol & Lee, 2017; Amit-Danhi & Shifman, 2022, 2022, 2022; Moran et al., 2020; Oltra et al., 2021; Schultz, 2017), we provide a theoretically grounded explanation of how the verbal and visual modes convey requests and how the interaction between image and text influences user engagement. Moreover, the distinction between direct and indirect requests further enhances the granularity and insightfulness of the present study. Overall, our work contributes to a more holistic understanding of persuasive communication on social media platforms. Although our study focused on Facebook, we believe that our findings provide valuable insights for communication on other social media platforms that commonly feature both visual and verbal elements, such as Instagram, LinkedIn, and X.

Second, we provide a theoretical account of the sense-making mechanisms underlying people's responses to visual and verbal requests. Our aim was to better predict and explain the differential effects of requests on user engagement, as observed in other studies (Amit-Danhi & Shifman, 2022; Bünzli & Alizadeh-Afrouzi, 2024; Moran et al., 2020; Oltra et al., 2021; Schultz, 2017). Drawing on social semiotics theory, we argued that requests can be conveyed both verbally and visually and that their influence on user engagement is shaped by both general and modality-specific semiotic principles operating

simultaneously. In line with our assumption, users prefer messages that clearly reveal a charity's persuasive intent through requests (clarity principle). However, they are more responsive to indirect than direct verbal requests (nuance principle) and tend to be distracted from the verbal text when the message includes a direct gaze image (captivation principle).

While our study focused on semiotic principles and their influence on persuasion, others have explored the psychological and behavioral principles that drive such effects. Among the most widely known are Cialdini's principles of persuasion: reciprocity, consistency, social validation, liking, authority, and scarcity (Cialdini, 2001; Isabella, 2022). A commonality between our study and the literature on Cialdini's principles is the idea that multiple principles can be activated by a single message (Kaptein & Duplinsky, 2013; Roethke et al., 2020). For instance, a marketing campaign might simultaneously leverage reciprocity by offering a free trial or gift in exchange for engagement and social proof by featuring positive customer reviews. When present simultaneously, these different principles interact and collectively influence the persuasive effects of a message (Roethke et al., 2020). Similarly, in our study, the principle of clarity worked in tandem with modality-specific principles to shape user engagement. Overall, we believe that our work makes a valuable contribution to a deeper and more comprehensive understanding of visual and verbal requests in advocacy messages.

In terms of practical contributions, our study provides relevant and actionable directions for nonprofit organizations. Our findings show that verbal requests are conducive to engagement but only if indirect and direct verbal requests are not combined in the same post. Interestingly, and contrary to the widespread belief in social marketing, our further results suggest that caution is warranted when using direct verbal requests, as recipients are more responsive to indirect verbal requests. For the visual mode, we have shown that posts are associated with enhanced user engagement as long as at least one of the depicted people gazes directly into the camera, thereby demanding the viewer's attention. Additionally, if unsure of how to phrase a request, communication practitioners may want to include a direct gaze image in the post, as this type of image desensitizes users to variations in the text. Moreover, since the semiotic principles governing the sense-making of verbal and visual requests are not tied to a specific message sender, we believe that our conclusions are applicable to other organizations, such as commercial companies or even political parties.

5.5. Limitations

As any research endeavor, this one comes with limitations. The first concerns our focus on large nonprofit organizations from Forbes' "America's Top 100 Charities" list. Although our findings are consistent across various engagement outcomes, further validation is needed to determine how well they apply to smaller, local charities. Another limitation concerns the geographic and cultural diversity of our sample. The nonprofit organizations examined are based exclusively in the U.S., thus primarily addressing a North American audience. Although we believe that the mechanisms governing the observed relationship between requests and user engagement are general principles of human

communication, our ability to generalize these findings to other cultural contexts is limited. Lastly, we acknowledge that the correlational study design we used does not permit causal inferences, strictly speaking. We therefore encourage future research to use experimental designs to validate our findings.

6. Conclusion

This research aimed to explore how visual and verbal requests affect user engagement on Facebook. A content analysis of 2250 Facebook posts from U.S. nonprofit organizations revealed that posts are more effective in engaging users when they communicate the sender's intentions through visual or verbal requests. However, not all types of requests are equally effective. Verbally, posts should include only indirect requests and avoid combining them with direct ones. Visually, it is crucial that at least some of the people in the image make direct eye contact with the camera. However, while direct gaze images improve user engagement, they may desensitize users to variations in verbal texts, increasing the risk that important advocacy-related information may be overlooked. Taken together, we believe that our findings have significant implications for the effective use of verbal and visual communication on Facebook and other social media platforms that typically combine images and text.

CRedit authorship contribution statement

Fabienne Bünzli: Writing – review & editing, Writing – original draft, Project administration, Methodology, Formal analysis, Conceptualization. **Martin J. Eppler:** Writing – review & editing, Validation, Conceptualization.

Data availability statement

The data underlying this article will be shared on reasonable request to the corresponding author.

Declaration of generative AI in scientific writing

During the preparation of this work the authors used Chat GPT (GPT-4o) in order to improve readability and language of the manuscript. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content of the published article.

Funding

This work was supported by the Swiss National Science Foundation (SNSF) under the grant number 214958.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix

Table A. 1

The verbal and visual request categories.

Modality	Category	Description	Examples
Verbal Request	Direct	Number of direct requests made in the post. Direct requests are formed using imperatives.	"Donate now to support our initiatives!" "Sign our petition to protect endangered species!" "Join us this Saturday for a beach cleanup!" "Share this post to spread awareness about food insecurity."
Verbal Request	Indirect	Number of indirect requests made in the post. Indirect requests are formed using a two-part structure. -A polite question or phrase used to introduce the actual request (e.g., can, could, would, may, would you mind, are you interested in, please consider, I was wondering if, I recommend you to) and -the actual request (e.g., make a donation, share your story with us).	"Would you be willing to make a small donation to support our cause?" "Would you like to learn more about our health program?" "Are you interested in attending our upcoming event?" "Just like Andrea, you can help save lives through your volunteer work."
Visual Request	Direct gaze	Number of people who gaze directly at the viewer.	A young refugee child standing in a crowded camp, looking directly into the camera. A cancer survivor holding up a sign that says "I Beat Cancer", looking proudly at the viewer. Three healthcare workers wearing masks and looking directly at the viewer.
Visual Request	Averted gaze	Number of people with an averted gaze (i.e., people look away).	A child sitting alone on a school bench, looking at the ground. An elderly man in a wheelchair, staring out of a window. Four women in a rural village walking with water jugs and looking toward a distant well.

Table A.2

Pairwise Least Significant Difference (LSD) post-hoc comparisons for verbal request type by visual request type with # of likes as outcome variable.

Visual	Verbal			<i>t</i>	df	Significance level for # Likes
	Contrast (I):	Contrast (J):	I-J: Contrast estimate (<i>SE</i>)			
Direct gaze-only image	Mixed requests	Indirect only	-158.703 (83.88)	-1.892	2235	.059
	Mixed requests	Direct only	-28.393 (26.660)	-1.065	2235	.287
	Indirect only	Direct only	130.310 (73.791)	1.766	2235	.078
Mixed gaze image	Mixed requests	Indirect only	-122.071 (83.151)	-1.468	2235	.142
	Mixed requests	Direct only	-45.955 (33.059)	-1.390	2235	.165
	Indirect only	Direct only	76.116 (73.072)	1.042	2235	.298
Averted gaze-only image	Mixed requests	Indirect only	-98.851 (46.793)	-2.113	2235	.035
	Mixed requests	Direct only	-27.010 (17.355)	-1.5556	2235	.120
	Indirect only	Direct only	71.842 (36.845)	1.950	2235	.051

Note. Number of hashtags, links, and words were entered into the analysis as covariates.

Table A.3

Pairwise Least Significant Difference (LSD) post-hoc comparisons for verbal request type by visual request type with # of love emoji likes as outcome variable.

Visual	Verbal			<i>t</i>	df	Significance level for # Love emoji likes
	Contrast (I):	Contrast (J):	I-J: Contrast estimate (<i>SE</i>)			
Direct gaze-only image	Mixed requests	Indirect only	-13.339 (11.474)	-1.163	2235	.245
	Mixed requests	Direct only	-5.846 (6.728)	-.869	2235	.385
	Indirect only	Direct only	7.493 (9.760)	.768	2235	.443
Mixed gaze image	Mixed requests	Indirect only	-37.196 (26.571)	-1.400	2235	.162
	Mixed requests	Direct only	-12.955 (8.541)	-1.517	2235	.129
	Indirect only	Direct only	24.241 (24.337)	.996	2235	.319
Averted gaze-only image	Mixed requests	Indirect only	-17.921 (8.400)	-2.133	2235	.033
	Mixed requests	Direct only	-10.697 (4.852)	-2.205	2235	.028
	Indirect only	Direct only	7.224 (5.480)	1.318	2235	.188

Note. Number of hashtags, links, and words were entered into the analysis as covariates.

Table A.4

Pairwise Least Significant Difference (LSD) post-hoc comparisons for verbal request type by visual request type with # of care emoji likes as outcome variable.

Visual	Verbal			t	df	Significance level for # Care emoji likes
	Contrast (I):	Contrast (J):	I-J: Contrast estimate (SE)			
Direct gaze-only image	Mixed requests	Indirect only	−30.209 (16.930)	−1.74	2235	.075
	Mixed requests	Direct only	−9.609 (5.310)	−1.810	2235	.070
	Indirect only	Direct only	20.600 (13.910)	1.481	2235	.139
Mixed gaze image	Mixed requests	Indirect only	−12.268 (9.272)	−1.323	2235	.186
	Mixed requests	Direct only	−3.692 (2.347)	2.347	2235	.116
	Indirect only	Direct only	8.575 (8.517)	1.007	2235	.314
Averted gaze-only image	Mixed requests	Indirect only	−15.022 (8.027)	−1.871	2235	.061
	Mixed requests	Direct only	−2.083 (2.329)	−.894	2235	.371
	Indirect only	Direct only	12.939 (7.139)	1.812	2235	.070

Note. Number of hashtags, links, and words were entered into the analysis as covariates.

Table A.5

Pairwise Least Significant Difference (LSD) post-hoc comparisons for verbal request type by visual request type with # of comments as outcome variable.

Visual	Verbal			t	df	Significance level for # Comments
	Contrast (I):	Contrast (J):	I-J: Contrast estimate (SE)			
Direct gaze-only image	Mixed requests	Indirect only	−7.439 (7.945)	−.936	2235	.349
	Mixed requests	Direct only	2.753 (4.562)	.603	2235	.546
	Indirect only	Direct only	10.192 (7.747)	1.316	2235	.188
Mixed gaze image	Mixed requests	Indirect only	−17.695 (12.661)	−1.398	2235	.162
	Mixed requests	Direct only	−7.988 (4.624)	−1.727	2235	.084
	Indirect only	Direct only	9.707 (10.948)	.887	2235	.375
Averted gaze-only image	Mixed requests	Indirect only	−13.981 (7.332)	−1.907	2235	.057
	Mixed requests	Direct only	−2.982 (2.123)	−1.405	2235	.160
	Indirect only	Direct only	10.999 (6.106)	1.801	2235	.072

Note. Number of hashtags, links, and words were entered into the analysis as covariates.

Table A.6

Pairwise Least Significant Difference (LSD) post-hoc comparisons for verbal request type by visual request type with # of shares as outcome variable.

Visual	Verbal			t	df	Significance level for # Shares
	Contrast (I):	Contrast (J):	I-J: Contrast estimate (SE)			
Direct gaze-only image	Mixed requests	Indirect only	−6.102 (5.473)	−1.115	2235	.265
	Mixed requests	Direct only	.199 (3.344)	.059	2235	.953
	Indirect only	Direct only	6.300 (4.835)	1.303	2235	.193
Mixed gaze image	Mixed requests	Indirect only	−21.212 (12.303)	−1.724	2235	.085
	Mixed requests	Direct only	−8.818 (4.578)	−1.926	2235	.054
	Indirect only	Direct only	12.395 (11.288)	1.079	2235	.281
Averted gaze-only image	Mixed requests	Indirect only	−12.913 (5.054)	−2.555	2235	.011
	Mixed requests	Direct only	−3.708 (2.364)	−1.568	2235	.117
	Indirect only	Direct only	9.205 (4.173)	2.206	2235	.027

Note. Number of hashtags, links, and words were entered into the analysis as covariates.

Data availability

Data will be made available on request.

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