

Decoding the Effectiveness of NGOs Campaigns: A Neuromarketing and Content Analysis Approach

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Abstract

In the competitive advertising landscape of nonprofit fundraising, effectively engaging potential donors through impactful video content is vital for Non-Government Organisations (NGOs). This study investigates how NGOs can enhance audience engagement by leveraging content and appeal strategies, assessed through both traditional content analysis and neuromarketing techniques. The research examines the types of information and appeal messages present in NGO campaign videos and evaluates viewer responses using eye-tracking, facial coding, and Implicit Priming Test (IPT). The analysis identifies common content elements such as calls to action, emotional storytelling, and solution-focused narratives that drive engagement. Findings reveal that visual attention, emotional resonance, and clear messaging significantly influence the willingness to donate (WTD). Additionally, biometric data underscore the importance of strategic visual and emotional components in sustaining viewer interest and prompting action. This study provides evidence-based recommendations for crafting compelling video campaigns that foster empathy, capture attention, and motivate audiences and so become more effective for NGO fundraising. The results underscore the potential of neuromarketing tools to optimise video effectiveness, bridging the gap between emotional appeal and donor behaviour in nonprofit communication strategies.

Keywords:

Neuromarketing, Nonprofit Organisations, Eye tracking, Facial Expression

1. Background, Research Questions and Objectives

Non-governmental organisations (NGOs) have increasingly turned to digital platforms to advertise their campaigns; aiming to raise awareness, foster empathy, and encourage support. Video campaigns have become a central advertising tool for NGOs as it combines visuals, narrative, and appeals for aid to communicate complex social issues effectively. However, the specific mechanisms that make some videos more engaging or impactful than others remain opaque. While research on non-profit marketing has focused extensively on still images and social media (Ariely et al., 2009; Basil et al., 2008; Erlandsson et al., 2018; Hou et al., 2023), and factors influencing video virality on social media, there is limited academic insight into how NGOs use content and appeal types within campaign videos to engage their

audiences effectively (Arroyo Almaraz et al., 2013; Waters & Jones, 2011). The focus on empathy and affect in video campaigns makes the subject ideal for the application of neuromarketing techniques. Neuromarketing tools for assessing emotional (empathy) and cognitive (affect) responses, offering a unique perspective into audience engagement by analysing neural and physiological reactions to different content or appeal types (Alonso Dos Santos et al., 2017; Martinez-Levy et al., 2022; Sandoval & García-Madariaga, 2024)

We examine the content strategies and appeal messages employed by 15 NGOs¹ in their campaign videos, analysing the impact of these elements on viewer engagement and information retention. This analysis is adopted as the framework to guide our use of neuromarketing techniques; eye-tracking, facial coding, and Implicit Priming Test (IPT). By collectively combining insights from traditional (explicit) marketing research such as surveys and content analysis with neuromarketing (implicit) methodologies to capture viewers' physiological and neurological responses, NGOs have more actionable data to design more effective campaign advertising videos based on more refined insights into attention, emotional arousal, and retention.

Our research contributes to the limited literature on NGO video campaigns and informs NGOs on how to improve content and appeal strategies for greater impact and support. In doing so, the study provides a foundational resource for NGOs looking to improve their video campaigns' reach and influence. This study contributes theoretically by expanding knowledge of NGO communication strategies, methodologically by advancing the application of mixed methods in video analysis, and practically by offering NGOs tangible, research-based strategies for creating impactful video campaigns. Together, these contributions help NGOs leverage video content to improve engagement and more effectively achieve their missions in advocating for social change.

1.1. Research Questions

Given the rapid expansion of digital content and the necessity for NGOs to communicate effectively in a crowded media landscape, examining the specific elements that contribute to effective video campaigns is essential. The study addresses three key research questions:

Q1: What types of information content are typically included in NGO campaign videos?

Understanding the informational content used in NGO campaign videos provides insights into how NGOs communicate their missions, goals, and calls to action. This question

¹ Age UK, British Red Cross (BRC), Christian Blind Mission (CBM), Four Paws, Help Age, The International Olympic Committee (IOC), NABU, RSPCA, Sightsavers, UNICEF, Welthungerhilfe, World Vision, Green Peace, Marie Curie, and WWF.

aims to categorise the types of information presented, such as facts about the issue, testimonials, calls for donations, or volunteer opportunities. Identifying these content types offers a foundational understanding of how NGOs structure their messaging to educate and persuade viewers.

Q2: What types of appeal messages do NGOs employ in their campaign videos to engage their target audience? This question explores the range of appeal messages NGOs employ to resonate with viewers emotionally and cognitively. Emotional appeals, positive or negative, rational appeals, or moral/altruistic appeals, may significantly impact a viewer's decision to engage with or support the campaign. By categorising and analysing these appeal types, this study aims to uncover which messaging strategies are most effective for engaging target audiences.

Q3: How can neuromarketing techniques be applied to evaluate the effectiveness of an NGO's promotional video? This question examines the application of neuromarketing techniques, eye-tracking, facial coding, and IPT, as implicit measurement techniques, and surveys, as explicit techniques to assess how viewers respond to different elements of NGO campaign videos. Neuromarketing offers objective measurements of viewers' cognitive and emotional reactions, providing a unique lens to evaluate video effectiveness. By applying these methods, this study seeks to offer NGOs evidence-based recommendations for crafting videos that attract viewers' attention and leave a lasting impact. The practical implications of this study will empower NGOs with the knowledge and tools to enhance their digital campaigns. Collectively, these research questions aim to provide a comprehensive analysis of NGO campaign video content and messaging strategies while demonstrating how neuromarketing tools can enhance the evaluation of video effectiveness.

1.2.Objectives of the Study

This study aims to provide a comprehensive understanding of the content and effectiveness of NGO campaign videos. It does so by employing both explicit and implicit research methods. The explicit methods, such as content analysis, offer structured observations of video content, while implicit methods, such as neuromarketing techniques, provide insights into unspoken cognitive and emotional responses. Together, these approaches aim to achieve the following objectives. Through explicit content analysis, the objective is to identify and classify the informational components NGOs include in their campaign videos systematically. This categorisation will offer a foundational framework to understand how NGOs effectively communicate their message to inform and educate viewers. This objective involves analysing

various appeal types explicitly presented in NGO campaign videos. By categorising and examining these strategies, the study aims to reveal which appeals are most effective in fostering engagement, empathy, and action among viewers. This analysis will be complemented by implicit methods, such as neuromarketing tools, to assess viewers' unspoken reactions to these appeal types, providing a nuanced view of how different strategies impact engagement. Using implicit methods, including eye-tracking, facial coding, and IPT analysis, the objective is to assess at a subconscious level how viewers respond to distinct content strategies and appeal types in NGO campaign videos. These techniques will capture viewers' physiological and neurological responses, providing insights into attention, emotional arousal, and retention. These implicit measures complement the explicit content analysis by revealing deeper, unarticulated viewer reactions that inform the overall effectiveness of the videos.

2. Literature Review

While research on NGO campaign videos is limited, there is a wealth of literature on non-profit advertising and social media. Ideas about what type of information or content or appeals should be included in our analysis were drawn from several of these studies. Credible information in NGO campaigns is crucial for establishing legitimacy, increasing audience engagement, and donor trust (Xiao et al., 2022; Ziberi et al., 2024). This information includes credentials, testimonials, explanations of work, and authentic examples of the NGO's success. More practical information, like donation guidelines, website URLs, social media accounts, hashtags, and phone numbers also adds authenticity. Statistics and facts are often used to support the organization's position and provide proof of its work (Wymer & Gross, 2023).

Incorporating personal stories or testimonials into campaigns is a powerful tool to help NGO's build a deeper emotional connection with viewers (Arroyo Almaraz et al., 2013; Varghese et al., 2020). By sharing personal stories from those affected, the audience can feel a strong emotional connection to the cause. This emotional connection can be further strengthened by testimonials from experts, advocates, or supporters who endorse the organisation's work and the campaign's importance (Arroyo Almaraz et al., 2013; Varghese et al., 2020). Storytelling or narration is also commonly used to stimulate emotions and foster audience connection. These techniques help create an emotional impact and convince supporters to donate. NGOs often use sensory words and visuals to narrate the impact of their campaigns. (Martinez-Levy et al., 2022; Martínez-Rodrigo & Marfil-Carmona, 2017; Mitchell & Clark, 2021). Powerful imagery is often also used to convey an NGO's core

message and elicit emotions, often showing footage of their work, those affected, and issues targeted by their campaign (Hou et al., 2023; Jordan et al., 2019; Yeoh & Kim, 2024). These images are often used to evoke potent emotions in viewers and are closely tied to emotional appeals. The visual content is usually original and authentic to increase credibility and help familiarise potential supporters to with the issue (Hou et al., 2023; Jordan et al., 2019).

Calls to action are crucial in NGO advertising, as they encourage viewers to take specific actions towards supporting a cause, such as signing a petition, donating, or sharing the video on social media. Clear action calls include verbal requests, text-based information, or buttons linking to donation pages or other resources (Martínez-Rodrigo & Marfil-Carmona, 2017; Tao et al., 2024). Information about an NGO's background, planned projects, and mission is crucial in fostering an emotional response and establishing a link between the cause and potential donors (Erlandsson et al., 2016, 2018). This helps create a sense of urgency and understanding of the social, environmental, or political issue. Campaign videos often provide potential solutions to the problem, demonstrating their clear course of action (Xiao et al., 2022). They provide a video showcasing their impact and the measures they are pushing to address the issue, demonstrating their credibility and commitment to a solution.

Brand familiarity is critical for non-profit organisations to communicate their principles and values to potential donors to effectively, creating trust and efficiency (García-Madariaga et al., 2024; Waters & Jones, 2011). Organisations with a well-known brand can shorten the time required to digest information and make decisions. Music as one of the most powerful stylistic devices in film, steers the emotions. Positive, hopeful music triggers a subconscious positive connection to the NGO in the viewers' minds (García-Madariaga et al., 2024; Waters & Jones, 2011).

3. Methodology

The study used a mixed-methods approach, combining qualitative and quantitative methodologies to explore NGO campaign video effectiveness. The research was designed to assess both explicit content characteristics and implicit cognitive and emotional responses from viewers. The aim was to provide a comprehensive analysis by integrating content analysis with neuromarketing techniques; eye-tracking, facial coding, and IPTs. This design supports a dual focus: understanding the informational and appeal content in NGO videos and evaluating viewer responses through advanced neuromarketing tools. This approach was designed for speed, accuracy, and precision, incorporating contributions from students, experts, and advanced biometric tools. The structured approach ensured the reliability and

validity of the findings, adhering to the academic rigour required for advertising research.

The methodology consisted of four main phases: selection of NGOs and videos, data collection, data analysis, and synthesis of mixed-methods findings.

Data collection was performed in two phases. The first phase involved content analysis of 15 campaign videos from various NGOs, video elements were coded based on predefined categories drawn from relevant literature focusing on identifying key content types, such as calls to action, narratives, and emotional or rational appeals.

Phase 2 of the data collection process was conducted in collaboration with Nova School of Business and Economics, engaging master's students enrolled in a consumer behaviour course. A specialised course module was developed, focusing on neuromarketing techniques to analyse emotions, attention, and campaign effectiveness. Over six to eight weeks, students acted as consultants for NGOs, applying neuromarketing principles under faculty supervision. Fifteen groups of students each worked with one of the NGO videos, distributing survey links with integrated neuromarketing tools and targeting a diverse audience with a minimum of 50 respondents per NGO. The study gathered biometric data from participants using eye-tracking technology to capture visual attention patterns, facial coding software to record emotional expressions, and IPTs to measure subconscious reactions to video stimuli. The participant sample comprised individuals with diverse backgrounds to ensure varied cognitive and emotional reactions, providing robust insights into engagement metrics.

For Phase 1, to ensure a representative sample, we selected 15 internationally active NGOs addressing global issues, including the International Olympic Committee (IOC) and UNICEF, focusing on those operating in Europe and the UK. The selection criteria emphasised diversity in organisational scope and mission. Experts in the NGO sector were consulted to identify the most engaging videos from the official YouTube channels of these organisations. Validation was performed by cross-checking video view counts and consulting market research specialists. CoolTool by RIWI was selected because it is user-friendly for both students and survey participants to use, to enhance data collection, and provides consumer insights quickly and cost-effectively. We conducted a rigorous data purification process from an initial dataset of 1,281 responses that excluded incomplete or low-quality responses, resulting in a final sample size of 886 valid responses. This comprehensive dataset formed the basis for subsequent analysis.

The data analysis combined qualitative content categorisation with quantitative metrics. For the content analysis, video elements were coded based on predefined categories. Statistical analyses, including Chi-Square tests and correlation analyses, were applied to assess

relationships between different types of video content and viewer reactions. Neuromarketing data were analysed using heatmaps from eye-tracking for fixation patterns, identifying Areas Of Interest (AOI): Key Message, Branding, Contact info/website, and Contact info/website/hashtag. Facial coding outputs for emotional response rates were analysed using sentiment analysis and regression analysis. Reaction times from IPTs for subconscious processing speed. This comprehensive approach allowed the study to link specific video elements to levels of attention, emotional arousal, and willingness to donate, providing actionable insights for NGOs to optimise their video content.

4. Results and Discussions

Statistical analysis of the NGO campaign videos through provided valuable insights into the use of appeal messages. The correlation analysis highlighted relationships between evocative imagery and calls to action, personal stories with storytelling, and solutions with issue overviews. This first pairing was commonly used to create an emotional arc that drives viewers toward support actions. Personal narratives or testimonials in videos were frequently embedded within storytelling frameworks, enhancing emotional resonance. By presenting solutions alongside issue overviews, NGOs provide a complete narrative that informs viewers of the problem and the ways they can contribute to resolving it. A significant observation from this analysis is that NGOs like AGE UK and the BRC effectively use credibility markers to establish trust with their audience. By integrating elements such as data, statistics, and verified stories, these organisations emphasise the legitimacy of their cause, which can be essential in building a sense of reliability and transparency among viewers. However, other organisations, including Four Paws and CBM, do not place the same emphasis on credibility markers in their campaign videos. Without the support of statistical evidence or clear factual reinforcement, these organisations may struggle to convey the gravity and urgency of their missions to audiences, potentially hindering engagement. In particular, for organisations like Four Paws and CBM, the inclusion of testimonials, real-world success stories, and credible statistics could significantly elevate the perceived sincerity of their messages, enhancing audience trust and increasing the likelihood of viewer support. NGOs frequently employ emotional appeals to evoke empathy and compassion among viewers. Organisations like AGE UK, the BRC, and Four Paws incorporate narratives that spotlight vulnerable groups or individuals in need, encouraging audiences to feel personally connected to their causes. Through relatable stories and visuals of hardship and resilience, these NGOs create powerful emotional connections that motivate audiences to take action. Emotional appeals often

include direct testimonials and storytelling that resonate deeply, fostering a sense of shared humanity and urgency. The high prevalence of evocative imagery and calls to action underscores a strategy focused on emotional connection and audience mobilisation. By prioritising these elements, NGOs aim to evoke empathy and motivate viewers to take immediate actions that align with the campaign's goals. Additionally, the frequent combination of evocative imagery with calls to action (73% of cases) demonstrates a deliberate effort to channel viewers' emotions into tangible support activities.

This research utilises an innovative mixed-methods approach that combines explicit and implicit measurement techniques to evaluate the effectiveness of NGO promotional videos. By integrating content analysis with neuromarketing tools, this dual approach provides a comprehensive view of video impact, capturing both observable content and subconscious audience responses, key to understanding viewer engagement. Eye-tracking technology, as an implicit method, captures real-time data on which video elements engage viewers' attention, revealing which scenes, logos, or calls to action hold focus. For instance, if eye-tracking data shows that viewers disengage during particular segments, NGOs can adjust these sections to sustain attention. This technique, combined with explicit content analysis, allows for a holistic assessment of attention levels across videos, such as those from AGE UK and Help Age. Facial coding captures subtle, subconscious facial expressions that indicate how viewers perceive and interpret the content. These responses reveal engagement levels and viewer resonance with the video's message. For example, if facial coding data shows limited engagement with certain narratives, content analysis can identify specific areas, like clarity or relatability, that may need improvement. This combined approach helps explain why some NGOs, like AGE UK, may experience lower perception scores, while the BRC, with its favourable perception, can use this insight to further enhance emotional resonance.

Emotional response is a critical factor in driving viewer empathy and support. Facial coding and IPT measure emotional reactions, such as empathy, sadness, or hope, at subconscious levels. For example, AGE UK's campaigns evoke sadness, yet implicit data can indicate if this emotion motivates support or leaves viewers overwhelmed. By pairing these insights with content analysis of emotional cues in the video, NGOs can create a balanced emotional appeal that motivates viewers. The BRC's varied emotional engagement serves as a model, with neuromarketing data guiding NGOs like Help Age to refine emotional appeals for stronger viewer impact. Action intention can be implicitly gauged through IPT, which reveals motivational cues and highlights whether viewers are inclined toward supportive actions, such as donating. Strong subconscious responses during call to action moments indicate an

effective prompt, while low engagement suggests the need for clearer or more compelling calls to action.

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