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Engaging for a cause: How nonprofits can leverage theory to maximize video engagement on Instagram.

Aiko A. A. A. Jones
University of Louisville

ENGAGING FOR A CAUSE: HOW NONPROFITS CAN LEVERAGE THEORY TO MAXIMIZE VIDEO ENGAGEMENT ON INSTAGRAM

By

Aiko A. A. A. Jones
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A Thesis Approved on

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By the following Thesis Committee

_____
Lindsay J. Della, Thesis Director

_____
Siobhan E. Smith-Jones

_____
Aaron Barnes

ABSTRACT

ENGAGING FOR A CAUSE: HOW NONPROFITS CAN LEVERAGE THEORY TO MAXIMIZE VIDEO ENGAGEMENT ON INSTAGRAM

Aiko A. A. A. Jones

April 24, 2014

Video is the second-richest form of media, conveying both verbal and nonverbal cues to viewers (Hasim et al., 2020). When coupled with the accessibility of social media, videos can spark consumer interest and convert neutral parties to brand-supporters (Alamäki et al., 2019; Tseng & Wei, 2020). This study aimed to investigate the effects of using Aristotle's persuasive appeals, Berger's STEPPS, and Monroe's Motivated Sequence on the success of nonprofit organizations' social media videos, measured in engagement metrics (likes and comments). Through a content analysis of 50 videos posted to Instagram by randomly selected nonprofit organizations, this study found that *pathos* was the most used of Aristotle's persuasive appeal and that *triggers* were the most common element of Berger's STEPPS used in the videos. The study also determined that most of the videos used elements of Monroe's Motivated Sequence.

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LITERATURE REVIEW

In recent years, "video has emerged as a powerful tool for engagement and communication" (Forkel, 2023, para 1). Not only do videos capture an audience's attention, but they are also able to convey messages in ways that words cannot do on their own. For example, Macomber (2013) showed that 90% of those interviewed by Internet Retailer said that the videos they watched "played a part in their buying decisions for products and services" (p. 17). According to Media Richness Theory, communication channels have objective characteristics that determine how effectively they carry information. Video is the second-richest form of communication media, behind face-to-face communication (Hasim et al., 2020). Video communication is effective because it conveys verbal *and* nonverbal cues. It is more complex than simple audio communication or visual communication and is more effectual because "text, audio, and pictures alone do not make logical connections between symbolic systems" the way videos do (Alamäki et al., 2019, p. 758). Videos are 53 times more likely than traditional websites to receive organic responses from viewers, so it would make sense that when videos are made publicly accessible, like through social media platforms such as Instagram, that the videos become even more powerful (Macomber, 2013). Instagram is a "free mobile photo-sharing" platform that allows users to capture, edit, and share photographs and videos with their followers (Hasim et al., 2020, p. 3895). Tseng & Wei (2020) identify how the development of the smartphone has made it easier for consumers to access media

like Instagram *and* easier for marketers to access consumers. In addition, they point out that media richness positively influences consumers' attention, interest, and actions. Both points combined argue that the use of video communication, which has a high level of media richness, on social media, which is easily accessed by consumers, is advantageous for marketers and communicators alike. Because of this advantage, companies often use social media to foster ongoing relationships with their customers (Cuevas-Molano et al., 2021). Tseng & Wei (2020) and Alamäki et al. (2019) found that social media advertising in the form of videos sparks consumer interest and can convert neutral parties to brand-supporters. Hasim et al. (2020) hypothesized that social media richness has direct effects on brand loyalty and purchase intention and provided evidence that consumers are more likely to want to purchase an item and more likely to purchase that item after being exposed to media-rich content. Instagram allows companies to present media to consumers in its second-richest form, "eye-catching visuals," that allow them to immediately engage with the content (Hasim et al., 2020, p. 3896). Though these studies focus on commercial marketing and consumer behavior as it relates to purchasing products, the findings are also applicable to other types of organizations, like nonprofits, whose main goals are to spark interest and gain support (Di Lauro, et al., 2019).

It is not uncommon for a nonprofit organization (NPO) to use video to try to reach audiences. Video can drive someone's belief in a cause in the same way it can drive brand loyalty and purchase intention. Alamäki et al. (2019) advised that communication and marketing teams should hone in on how effective different media, like video, can be. The same goes for nonprofit communication teams. Even though NPOs are not typically aiming to make sales, they are interested in increasing awareness and attention to their

missions. In general, NPOs seek financial or time-related donations from the public, so generating interest in the mission of the NPO is an important first step towards needed operational resources. Alamäki et al. (2019) showed that an effective method for increasing interest in a topic was to use video. Specifically, they found that after watching videos, consumers became more interested in the topics featured in each video. Moreover, Millán et al. (2023) showed that the use of video communication can increase the consumer's ability to connect with an NPO and identify with its cause. When consumers view videos that promote NPOs and their causes, they are likely to become interested in the work of the NPOs. Thus, it follows that we might expect that the more consumers are exposed to an NPO's videos, the more their interest in the NPO's mission will grow, and the more likely they are to support the organization and its mission. Because NPOs rely heavily on donations, their business models depend on building relationships with consumers and developing consumers' potential to become involved (Di Lauro et al., 2019). In fact, Millán and colleagues (2023) showed that a relationship between one's intention to donate to an NPO correlates with their identifying with said NPO.

Because NPOs do not generate income, affordable social media platforms, like Instagram, are very suitable for reaching and sharing video content with consumers. Furthermore, social media platforms have been confirmed to improve organizational image and consumer involvement and engagement (Di Lauro et al., 2019). Thus, my research study is concerned with video content NPOs shared on social media.

It is also important to note that although videos are a crucial part of consumers' understanding of NPO causes, initiatives, and projects, studies that show videos having a

direct effect on consumer action are lacking (Salido-Andres et al., 2022). However, there *are* studies that show that actions like commenting on and liking a social media post can be used to make inferences about consumer attitude (Chaffey, 2007; Yoon et al., 2018). These actions are often referred to as "digital engagement" – online actions that involve both companies and their consumers and that strengthen the "emotional, psychological or physical investment a customer has in a brand" (Chaffey, 2007, para. 10). Engagement may include many actions, from simply viewing a post, to liking a post, to commenting on or sharing a post. Some of these actions are easier to measure than others, and some involve higher levels of engagement than others. Likes and comments are the most consistently used engagement metrics across various social media platforms and, though comments require more from a consumer than a simple one-click like (Yoon et al., 2018), they are both two of the easiest metrics to quantify. Consistent with di Lauro et al. (2019), Cuevas-Molano et al. (2021) and Chaffey (2007) emphasize an organization's need to create and maintain relationships with their consumers and highlight digital engagement in this process. In addition, as stated above, identification with an NPO generally translates to donation support (Millán et al., 2023). It is therefore likely, that NPO videos with higher levels of engagement (higher numbers of likes and comments) will result in more donations. This analysis prompts my main question: what kinds of videos are the most effective in garnering likes and comments for NPOs on social media?

Du Plessis (2013) offers evidence for storytelling as an effective technique for garnering engagement on social media. Du Plessis' research focused on how brands tell stories to connect with their consumers. It explored how social video-sharing platforms such as Instagram and YouTube have changed how stories are shared with the world. In

du Plessis' study, three global organization's branded storytelling videos on the video-sharing site, YouTube, were assessed for common themes. Du Plessis found that each of the videos studied was part of a series of stories that depicted each brand's personality and that these stories appealed to the emotions of the viewers, which allowed the audience to form positive associations with the nonprofit brand being promoted. Given du Plessis' research, I am interested in further interrogating the extent to which nonprofit organizations' videos on social media use specific persuasive elements of communication, such as emotional appeals and stories, to accomplish organizational goals. My study, then, seeks to identify specific elements of NPO video posts on the social media platform, Instagram, that coincide with increased levels of engagement in the form of likes and comments.

Theoretical Frameworks

In order to conduct this analysis, I rely on three established theoretical frameworks: Aristotle's theory of persuasive rhetoric, Jonah Berger's STEPPS theory, and Alan Monroe's Motivated Sequence (MMS). Historically, each of these approaches has been used to study communication of different forms. I set out to combine the theories in a way that produces a wholistic assessment of communication in the form of videos.

Aristotle's Persuasive Appeals

Video communication, as nonprofits implement it, is commonly broken down according to the theory of the famous philosopher, Aristotle (du Plessis, 2013; Masnovi, 2013; Smitko, 2012). His *The Art of Rhetoric* (2012), presents rhetoric as an art of demonstration that either involves the presenter's character, the audience's conscious position, or the presence of evidence. In other words, there are three ways to effectively

convince an audience of something – ethos, pathos, and logos. Aristotle's persuasive tactics are beneficial in communicating with consumers and potential consumers, each in its own way. An appeal to **ethos** is an appeal to credibility. Ethos is reliant on the "truthfulness of the presenter" of the message, the experience the presenter possesses, and the reason consumers should believe what the presenter has to say (Lamichhane, 2017). In marketing communication, appeals to ethos are often established through celebrity or expert endorsements and by disclosing the experience/education of the person sharing the message (Lamichhane, 2017). For example, an email newsletter for the *Hats Off for Cancer* initiative that quotes a famous actor encouraging people to "give the gift of hope," (Masnovi, 2013, p. 14) uses the actor's popularity to promote the organization's message. Those who are familiar with the actor may become more inclined to support the cause because the actor does. Similar effects can be seen when toothpaste brands and acne treatments claim to be recommended by the relevant health professionals, by appealing to medical expertise.

An appeal to **pathos** is an appeal to emotion and identity (Masnovi, 2013). Lamichhane (2017) describes it as appealing to how a consumer feels, which moves that person to act. Persuasion that relies on pathos values the motivation to feel over simple knowledge, comprehension, or understanding. It uses emotional language and personal connections to evoke emotions that consumers associate with the message, and to which may prompt psychological attraction (Lamichhane, 2017; Masnovi, 2013). A good example of pathos is seen in advertisements for Sensodyne toothpaste. One ad reads, "Do these [cold foods] cause a **sensation** in your teeth?" (Lamichhane, 2017, p.71). After seeing this ad, consumers will associate the "sensation" they feel after eating ice cream

with the need to use Sensodyne products. They make a connection between their feelings and the toothpaste that alleges to help cure that feeling. Emotional appeals are also often made using images. Another ad produced by the *Hats Off for Cancer* initiative displays an image of a happy 2-year-old boy who suffers from cancer (Masnovi, 2013). It tells his story before encouraging people to contribute to the fundraising campaign for this little boy who "lights up a room" despite his condition (Masnovi, 2013, p. 13). Including the image of this young boy evokes empathy for him and his family, making people feel inclined to donate in support of his journey.

Logos appeals focus on logic. They encourage an audience to engage in the critical thinking process based on "persuading evidence" and a direct appeal to intellect (Auger, 2014; Lamichahane, 2017). This type of appeal usually involves mentioning statistics and other academic evidence, describing cause/effect and problem/solution relationships, or identifying differences between similar products (Masnovi, 2013). For example, NPOs often rely on factual statements such as: "About 1,638,910 new cancer cases are expected to be diagnosed in 2012" (Masnovi, 2013, p. 12). With this sentence, *Hats Off for Cancer* presents a statement with a statistic that not only makes the statement more believable, but puts its argument into perspective. The organization follows up by saying, "Last year, we raised nearly $30,000 and donated more than 50,000 hats. With your contribution, that number can increase!" The organization has used this statistic to present a problem and a solution – a logos double whammy, if you will.

Aristotle's *The Art of Rhetoric* (2012) provides the foundation of understanding of persuasion as it may be used in communication. Though he developed his modes of persuasion in relation to speeches and legal rhetoric, he deems them applicable to any

field. Most frequently, ethos, pathos, and logos in marketing communication have been used to analyze textual persuasion (Aristotle, 2012; Auger, 2014; Masnovi, 2013; Paxton et al., 2020) Some of these studies have focused on ethos, pathos, and logos as they are implemented on social media (Auger, 2014; Masnovi, 2013), specifically Twitter (currently rebranded as X) and Facebook– sites that prioritize textual posts. Fewer studies have assessed more visually stimulating communication (Lamichhane, 2017) and even then, there is an absence of research that looks at video. Aristotelian appeals to ethos, pathos, and logos are "not concerned with any special or definite class of subjects" (Aristotle, 2012, p. 8). For this reason, I am able to apply this theory to video communication nonprofit organizations use as marketing collateral.

Jonah Berger's STEPPS

It is important to recognize, however, the limiting caveat of using Aristotelian appeals as the sole theoretical framework for this study. Rhetoric, in itself, is delivered for an effect rather than a response, meaning a message is delivered based on how it might impact the receiver as opposed to hoe the receiver of the message may respond (Aristotle, 2012). My research requires, then, additional frameworks for analysis that capture the overall effectiveness of the video communication being studied so it can be coupled with the appeals used. Jonah Berger's STEPPS theory (Berger, 2013; Pressgrove et al., 2018) and Alan Monroe's Motivated Sequence (Micciche et al., 2000; Hummadi et al., 2019; Jenkins et al., 2021) are suitable for making this analysis more wholistic.

Berger's STEPPS theory of viral marketing identifies six criteria that make content go viral (Billiot, 2015). In his book, *Contagious: Why Things Catch On*, Berger identifies each component of STEPPS as follows: **S**ocial currency, **T**riggers, **E**motions,

Public, **P**ractical value, and **S**tories. *Social currency* refers to information that makes one look good to others. Does speaking about this topic make them look smart? Or rich? Or cool? (Berger, 2013). Content with high *social currency* adds value to the sender's life and elevates their social status in some way (Berger, 2013). *Triggers* are components of marketing and communication that drive word-of-mouth. When implemented successfully, *triggers* cultivate what initially comes to mind when consumers think of a brand. They are constant reminders to the consumer to talk about what is being promoted (Berger, 2013). *Emotions* refer to how communication makes the consumer feel. Berger says "when we care, we share," arguing that when content makes people feel things they are more likely to share it with others (2013, p. 23) The fourth tenet, *public*, refers to content that is easily accessible and visible and that prompts others to imitate what they see (Berger, 2013; Pressgrove et al., 2018). The fifth criterion for viral content is *practical value*, which describes the idea that consumers will share content they deem useful because of their desire to help others. Finally, Berger's STEPPS rounds out with *stories*. Consumers value engaging in meaningful discussions about brands and stories are "vessels" that carry "morals and lessons" (Berger, 2013, p. 24). Content with *stories* is like a trojan horse. It embeds the promotional message in the story and carries it as an integral part of the tale (Berger, 2013).

Alan Monroe's Motivated Sequence

Although Aristotle's persuasive appeals describe content elements that might help change a person's attitude about a brand and Berger's STEPPS help to describe social media content that is likely to be engaged with and shared. By contrast, Monroe's Motivated Sequence (MMS) is often used to describe elements of communication content

that help prompt behavior and decision-making. In the 1930s, Alan Monroe developed a five-step sequence used to encourage an audience to act. In his words, the sequence "consists of five steps which correspond to the natural process of people's thinking" (Monroe, 1945, p. 170). As nonprofit organizations create material to convince people to support their causes, these steps become very helpful when applied correctly: *attention*, *need*, *satisfaction*, *visualization*, and *action* (Jenkins & Edwards, 2021). Therefore, communication that meets all five criteria is more likely to be successful in its persuasion and more likely to garner more engagement on social media than communication that is "hastily thrown together" (Monroe, 1945, p. 170; Yoon et al., 2018). Monroe's first point is that all persuasive presentations need an *attention-getter*. It is imperative that organizations pull their desired audience in by presenting something in which they are interested or can connect to in the introductory phases of the organizations' conversation (Jenkins & Edwards, 2021; Monroe, 1945).

Monroe's second point is that organizations need to establish their relevance by presenting a problem and explaining *why* it is a problem (Jenkins & Edwards, 2021). Establishing need is often done by urging change or by "mak[ing] the audience dissatisfied with existing conditions" (Monroe, 1945, p. 162). The *satisfaction* component involves presenting a solution to the problem that is tangible and specific enough that the audience understands it easily (Monroe, 1945). Step 4, *visualization*, explains the advantages of the solution to the problem and identifies the consequences if action is not taken. The purpose of this step is to "intensify desire" (Monroe, 1945, p. 165). Good persuasive communication helps the audience see how the solution will work (Jenkins & Edwards, 2021). *Action* is Monroe's final step. Organizations should conclude their

persuasion with an ask or a prompt to do something or translate their message into a fixed attitude or belief (Monroe, 1945). One example, provided by Jenkins & Edwards (2021), describes communication that encourages audience members to write to local law enforcement asking them to support a particular bill. The *action* component should not be too long; it should be a simple and immediate task to be most effective (Monroe, 1945).

Video Communication on Nonprofit Social Media

Aristotle's persuasive appeals, Jonah Berger's STEPPS theory, and Alan Monroe's Motivated Sequence can be combined to produce a rounded foundation for an analysis of nonprofit video communication. Aristotle's ethos, pathos, and logos allow investigation into the persuasive appeal of each video, Berger's STEPPS capture the nature of the video, and Monroe's sequence helps with the analysis of behavioral prompts in each video. All three are used to guide the focus of this study and to inform its methodological design.

Evidence for Aristotle's Ethos, Pathos, and Logos in Persuasive Social Media Posts

Masnovi (2013) is one example of a study in which Aristotle's principles were applied to nonprofit advertising for their effectiveness. She recognized the importance of choosing a suitable persuasive strategy for all types of communication and highlighted how imperative this choice is for nonprofits because of the duty they have to society. Masnovi's study is based on a survey distributed via an email newsletter for the *Hats Off for Cancer* campaign. From the survey, Masnovi garnered information about respondents' prior awareness of the campaign and their reactions to three different advertisements, each of which is based on one of Aristotle's three persuasive appeals. As previously described, one of the ads appealed to *ethos* through a celebrity endorsement and another

appealed to *pathos* by telling the story of a 2-year-old who suffers from cancer. The third ad appealed to *logos* by stating statistics and identifying a problem, that thousands of people continue to die from cancer, and a solution, that donating to *Hats Off for Cancer* will help the NPO assist those who are sick and in need (Masnovi, 2013). Results of the research showed that 79% of respondents perceived *pathos* as the most effective persuasive appeal (Masnovi, 2013). Only 19% of respondents preferred the *logos* approach, and 2% preferred an *ethos* approach. Based on these findings and her secondary research, Masnovi (2013) concludes that people are more likely to get on board with a nonprofit organization if that organization's advertising uses imagery to show how the nonprofit helps members of the community and pulls on their heartstrings.

Similar to Masnovi (2013), Auger (2014) performed a content analysis of tweets from eight different nonprofit organizations. She often referenced Smitko (2012) in her study but, to her surprise, her results did not align with Smitko's. In an analysis of Tweets, Smitko (2012) had found that *ethos* and *logos* were more frequently used than *pathos*. Auger (2014), on the other hand, found that 60% of the tweets she analyzed contained at least one of the persuasive strategies and that *pathos* was the most popular appeal used. She also highlighted that the tweets that appealed to emotion focused on encouraging a sense of community among readers. Auger's findings provide evidence that Aristotle's persuasive appeals are commonly used in organizational marketing. Nevertheless, these studies only assessed static social media posts. In this study, I am concerned with video communication. Given the richness of video communication and its ability to highlight emotion, I hypothesize that *pathos* will also be the most common

persuasive appeal employed in nonprofit video marketing communication on social media:

H1: Aristotelian persuasive devices (i.e., *ethos*, *pathos*, *logos*) occur significantly more often in the data than what would be expected due to chance alone.

RQ1: Does *pathos* appear to be the most used Aristotelian persuasive strategy in NPO videos on Instagram?

RQ2: Does use of Aristotle's persuasive appeals influence the number of likes and comments a video receives?

Berger's STEPPS in Action on Nonprofit Social Media

Pressgrove, McKeever, and Jang (2018) took Berger's framework and applied it to the Twitter content of nonprofit organizations in an effort to identify successful campaigns. Pressgrove et al. highlighted that most work that leaned on the STEPPS theory isolated each of the six criteria. Instead, Pressgrove's team took full advantage of the opportunity to use STEPPS as a comprehensive tool. Through an analysis of tweets about the Amyotrophic Lateral Sclerosis (ALS) *Ice Bucket Challenge*, the authors found that *social currency*, *emotion*, *public*, and *triggers* were more frequently involved in viral tweets than *practical value* and *stories* (2018). They also found that the choice of medium is just as important as the choice to include any of the six criteria as some criteria work better on some platforms than others. Again, because video is the second-richest form of media, because Pressgrove et al. (2018) found that *emotion* and *triggers* were among some of the most popularly used STEPPS elements, and because du Plessis (2013) found that brand *stories* work hand in hand with emotional appeals, I speculate that *emotion*, *triggers*, and *stories* are the more popular components of STEPPS used in

NPO video communication. My hypothesis strays from the findings in Pressgrove et al. (2018) because I am taking a more wholistic approach by combining elements of multiple theories. These predictions align more with the findings in Auger (2014) that show *pathos*, an appeal to emotion, to be more popular than appeals to logic and credibility. Considering the previously stated purpose of *social currency*, to add value to one's life or elevate their social status, I propose it is less likely that nonprofits pair this approach with emotions and more likely that they use *stories*. Additionally, I am interested to see how the appearance of Berger's STEPPS appear compared how they would appear due to chance alone. With all this in consideration, the following hypothesis and research questions were developed:

H2: Berger's STEPPS occur significantly more/less frequently in NPO videos than what would be expected due to chance alone.

RQ3: Does emotion occur in more NPO Instagram videos than the other elements of STEPPS?

RQ4: Does the use of STEPPS elements influence the number of likes and comments a video receives?

Monroe's Motivated Sequence Applied to Nonprofit Social Media

Micciche et al. (2000) used Monroe's Motivated Sequence (MMS) to analyze persuasion in the form of text. The authors exposed three groups of people to different versions of the same printed message about campus parking – the message organized according to MMS, the message organized according to MMS in reversed order, and the message organized to MMS in a randomized order. The message contained the proposal of a $50 student parking fee that would be used to improve campus parking facilities

(Micciche et al., 2000). They also exposed a separate, control group of students to a message completely unrelated to the campus parking. Unfortunately, the study found no significant effect of MMS, regardless of the order of the sequence employed, on participants' opinion of the campus parking topics in the communication messages. Even the control group showed similar ratings to the other three. Micciche et al. do not attribute these results to a failure of MMS, but instead to poor topic choice for the study. The researchers believed that the students already had strong opinions about campus parking that affected the results. They believed that "an issue of lower relevance" to the students would have generated different results and that a spoken message would have changed things as well (Micciche et al., 2000, p. 1137).

The results of Hummadi et al. (2019)'s study are similar to Micciche et al. (2000)'s research. In a qualitative analysis of Donald Trump's 12/6/2017 political statement he made about the ongoing Israeli-Palestinian conflict, these authors recognized MMS as a "popular and useful method for organizing content that aims at influencing audiences" (p. 969). They found mixed results about the usefulness of MMS in Trump's speech, arguing that though the speech lacked in the *support* component of MMS, it elaborated on *visualization* and *calls to action* and was effective as a result.

Of these two studies, one assesses written communication about an on-campus issue (Micciche, et al., 2000) and the other assesses political speech (Hummadi, et al., 2019). These are difficult to compare so the opportunity to see whether video communication would yield different results remains open. As a result, my study will look for the presence of elements of MMS and compare them to the sequence as Monroe originally identified it.

RQ5: Are MMS elements present in NPO video communication on Instagram?

RQ6: Does any element of MMS occur more or less frequently than it would due to chance alone?

RQ7: If MMS is present in a video, does it follow the original sequence, as espoused by Monroe, or does it deviate from the original sequence and subsequently what differences are noted?

RQ8: Does the use of elements of STEPPS influence the number of likes and comments a video receives?

METHODOLOGY

Research Design

This study employed a random sample of videos from the top 100 nonprofits listed in Forbes *2023 Top Charities* list to determine what strategies make nonprofit videos generate more likes and comments on Instagram (Barrett, 2023). By means of a content analysis, the videos were deductively coded for elements of three theoretical models, specifically Aristotle's persuasive appeals, Jonah Berger's STEPPS, and Alan Monroe's Motivated Sequence. The data was quantitively coded in order to test and answer the following hypotheses and research questions:

H1: Aristotelian persuasive devices (i.e., *ethos*, *pathos*, *logos*) occur significantly more often in the data than what would be expected due to chance alone.

H2: Berger's STEPPS occur significantly more/less frequently in NPO videos than what would be expected due to chance alone.

RQ1: Does *pathos* appear to be the most used Aristotelian persuasive strategy in NPO videos on Instagram?

RQ2: Does use of Aristotle's persuasive appeals influence the number of likes and comments a video receives?

RQ3: Does emotion occur in more NPO Instagram videos than the other elements of STEPPS?

RQ4: Does the use of STEPPS elements influence the number of likes and comments a video receives?

RQ5: Are MMS elements present in NPO video communication on Instagram?

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RQ8: Does the use of elements of STEPPS influence the number of likes and comments a video receives?

Sampling

A sample of 50 videos posted on Instagram by nonprofit organizations was randomly selected from the *Forbes 2023 Top Charities* list (Barrett, 2023). The original list had a total of 100 organizations; ChatGPT was used to generate 50 random numbers ranging from 1 to 100, and the NPOs with those rankings on the *Forbes* list were selected for the study (OpenAI, 2024). For example, if ChatGPT generated the number 27, the 27th NPO on the list would be selected. Appendix A contains the list of organizations selected for this study.

Descriptive information was collected for each organization on January 24, 2024 (see Table 1). This included the NPO's website, the NPO's Instagram handle, how many posts the NPO account has on Instagram, the number of followers the NPO account has on Instagram, and the number of Instagram accounts the NPO account follows. On the same day descriptive information was recorded, the most recent video related to the

NPO's cause or initiatives that appeared on each Instagram page was identified and the engagement metrics were recorded (number of likes and comments). Instagram has a feature that allows different organizations to "collaborate" on posts. In these cases, the posts appear on more than one Instagram feed and the engagement is shared by each collaborating account. Posts of this nature were included during the identification process. To ensure a variety of video types, avoid an abundance of content related to Christmas and New Years, and to focus on videos with cinematographic elements, the following exclusion criteria were developed:

- Any video posted on or after December 1, 2023
- Motion graphics
- Videos promoting giveaways
- Animated photos
- Infographics

In some cases, video likes were hidden by the organization that posted them and so were not visible during the data collection process. For the sake of this study and the focus on engagement, those videos were also excluded in the selection process.

Table 1

Followers, likes, comments and total engagement for each NPO video

Organization Name	Followers	Video Likes	Video Comments	Total Engagement
Heart to Heart International	2,674	12	0	12
Wounded Warrior Project	183,000	212	10	222
The Arc of the United States	3,827	106	2	108
North Texas Food Bank	16,600	67	0	67
Michael J. Fox Foundation for Parkinson's Research	192,000	165	4	169
American Heart Association	408,000	165	3	168

Environmental Defense Fund	45,500	39	1	40
American National Red Cross	298,000	297	17	314
JDRF International	838,00	151	1	152
HealthWell Foundation	1,274	16	2	18
Cleveland Clinic Foundation	179,000	167	2	169
Direct Relief	34,900	50	0	50
American Jewish Joint Distribution Committee	6,941	78	1	79
Samaritan's Purse	221,000	437	1	438
Easter Seals	6,444	18	0	18
Cross Catholic Outreach	4,812	16,330	284	16,614
Scholarship America	5,806	18	0	18
International Rescue Committee	303,000	310	1	311
Disabled American Veterans	64,100	294	2	296
United Way Worldwide	57,500	43	1	44
Mercy Ships	113,000	398	11	409
American Civil Liberties Union and Foundation	1,900,000	1,113	29	1,142
Goodwill Industries International	64,500	131	5	136
Boston Children's Hospital	76,300	605	6	611
Boys & Girls Clubs of America	53,100	110	2	112
Humane Society of the United States	423,000	1,286	28	1,314
Midwest Food Bank	1,398	30	1	31
Planned Parenthood Federation of America	1,000,000	3,031	60	3,091
Special Olympics	183,000	1,334	17	1,351
Rotary Foundation of Rotary International	299,000	841	42	883
MAP International	1,683	12	1	13
Houston Food Bank	21,200	1,066	22	1,088
Habitat for Humanity International	151,000	242	5	247
Second Harvest Heartland				
Food for the Poor	4,342	26	1	27
Metropolitan Museum of Art	9,098	88	4	92
Nature Conservancy	4,300,000	10,414	49	10,463
Food Bank of Central and	929,000	406	15	421
Eastern North Carolina	7,438	43	1	44
Entertainment Industry Foundation	5,433	16	0	16
Carter Center				
Catholic Relief Services	43,900	1,672	27	1,699

Young Life	29,900	36	0	36
Feeding America	167,000	5,478	30	5,508
El Pasoans Fighting Hunger	161,000	141	1	142
Save the Children Federation	2,188	27	0	27
PATH	1,400,000	44,103	1,111	45,214
United States Fund for	10,900	28	1	29
UNICEF	869,000	268	6	274
United Negro College Fund				
Good 360	39,800	755	27	782
Public Broadcasting Service	2,995	170	7	177
	1,000,000	565	5	570

Measures & Procedures

For each NPO, the number of followers, and the likes and comments on each video were recorded as continuous variables, exactly as stated on the Instagram mobile app. For values reported as 12K or 30.6K, data were recorded as 12,000 and 30,600, respectively. These data were used to calculate more proportional and comparable data in the form of 'like rate' (LIKES/FOLLOWERS) and 'comment rate' (COMMENTS/FOLLOWERS) as done in Cuevas-Molano et al. (2021). The total engagement for each video was also calculated (LIKES+COMMENTS) and used to calculate an overall 'engagement rate': TOTAL ENGAGEMENT / FOLLOWERS (Cuevas-Molano et al., 2021). To account for situations in which videos had no likes or comments, the formulas were adapted as follows (Cuevas-Molano et al., 2021):

- (LIKES + **1**) / FOLLOWERS
- (COMMENTS + **1**) / FOLLOWERS
- (TOTAL ENGAGEMENT + **1**) / FOLLOWERS

The presence of each theoretical element was determined based on a set of coding definitions, modeled closely after the codebook used in Pressgrove et al. (2018).

Elements of Aristotle's persuasive appeals and Berger's STEPPS were coded using a nominal, dichotomic system. If present, the element was coded as **1**, and if absent, the element was coded as **0**. Elements of Monroe's Motivated Sequence were coded ordinally as numbers **1** through **5** to capture the order of how they appeared in each video. Any element of MMS that was absent was coded as **0**. From these rankings, an additional nominal dichotomous variable was added to capture the presence of each element of MMS in each video. Present elements were coded as **1** and absent elements were coded as **0**. A second coder with master's-degree-level experience in both qualitative and quantitative analyses assisted with the coding a portion of the data. Cohen's kappa was calculated using 20% of the dataset to determine intercoder reliability for the presence of each element of the three theories. Initial calculations generated questionable Cohen's kappa values for the 'social currency' (κ =0.737) and 'action' (κ =0.737) variables. After reconvening with the second coder and redefining both terms, more reliable Cohen's kappa results were obtained (see Table 2). The final values were as follows: ethos (κ = 1.00), pathos (κ = 0.80), logos (κ = 1.00), social currency (κ = 1.00), triggers (κ = 0.80), emotion (κ = 0.80), practical value (κ = 0.80), public (κ = 1.00), stories (κ = 1.00), attention (κ = 1.00), need (κ = 1.00), satisfaction (κ = 1.00), visualization (κ = 1.00), action (κ = 1.00). A copy of the codebook is included in Appendix B.

All data were coded in Microsoft Excel spreadsheets. One spreadsheet contained all the descriptive data for each NPO. A second sheet was used to record the number of likes and comments on each post, and to calculate the rates for each metric and the overall engagement rate using the formulas outlined previously. The content analysis data

were coded in a third sheet, which was eventually combined with the descriptive data in one, master spreadsheet.

Table 2

Cohen's kappa results for the 20% of the data set.

Theory	Cohen's kappa
Aristotle's Persuasive Appeals	
Ethos	$\kappa = 1.00$
Pathos	$\kappa = 0.80$
Logos	$\kappa = 1.00$
Berger's STEPPS	
Social Currency	$\kappa = 1.00$
Triggers	$\kappa = 0.80$
Emotion	$\kappa = 0.80$
Public	$\kappa = 0.80$
Practical Value	$\kappa = 1.00$
Stories	$\kappa = 1.00$
Monroe's Motivated Sequence	
Attention	$\kappa = 1.00$
Need	$\kappa = 1.00$
Satisfaction	$\kappa = 1.00$
Visualization	$\kappa = 1.00$
Action	$\kappa = 1.00$

The master sheet was programmed to calculate the number of elements from each theory included in each video and the number of videos that utilized each element. All videos were analyzed independent of the captions posted with them. Finally, the entire data set was imported to Jamovi (version 2.5.2.0) where it was analyzed using R (Fox & Weisberg, 2023; The jamovi project, 2020; R Core Team, 2021).

Analysis

Upon the first review of the data in Jamovi, the calculated rates (like rate, comment rate, engagement rate) were difficult to analyze because they did not follow a pattern of normal distribution. To combat this, the natural log of the values for all three

variables was calculated, which produced more normally distributed data, before continuing the analysis (Cuevas-Molano et al., 2021). The full formulas for these values as they were used were thus:

- LN((LIKES + **1**) / FOLLOWERS)
- LN((COMMENTS + **1**) / FOLLOWERS)
- LN((TOTAL ENGAGEMENT + **1**) / FOLLOWERS)

After the data was transformed for normality, it became apparent that there was an outlier affecting the measures of central tendency and dispersion. The video in the sample belonging to the Cross Catholic Outreach organization had much higher rates of likes, comments, and overall engagement than the rest of the sample. This record was filtered out after analysis of the presence of each theoretical element to capture more accurate assessments of the hypotheses and research questions related to rates of engagement.

The descriptive data obtained was analyzed to answer RQ1, RQ3, and RQ5. The total number of videos that used each element of the three theories was calculated using SUM and COUNTIF functions in Microsoft Excel. Independent chi-square analyses were run to test whether elements of each theory appeared more than what would be expected due to chance alone (H1, H2, RQ6). Following this, further descriptive analyses were conducted to assess the co-occurrences of Aristotle's persuasive appeals and the co-occurrences of Berger's STEPPS. This analysis was performed in Microsoft Excel using several IF/AND formulas. Videos with Aristotle's persuasive appeals were then grouped into three, mutually-exclusive categories of another variable: one group for videos with only one appeal, another for videos with more than one appeal, and a third for the videos

with no appeals present. A one-way ANOVA was run with this variable to see if the number of appeals used influenced the engagement each video received (RQ2).

To investigate the order in which MMS was used in the videos, a descriptive analysis was conducted: videos that used MMS in order were tallied and videos that didn't were excluded from the count (RQ7). Scatterplots were created to investigate the presence of linear relationships between the number of Berger's STEPPS or MMS steps used in each video and the engagement that video received. Of those relationships, the ones that appeared linear were tested with correlation analyses (RQ4, RQ8).

RESULTS

Presence of theoretical frameworks in sample videos

Of all 50 videos analyzed, 49 had used at least one element from at least one of the theories in focus. 43 videos had at least one of Aristotle's persuasive appeals, 48 had at least one of Berger's STEPPS, and 42 had at least one element of Monroe's Motivated Sequence. Only 1 video from the sample was without influence from any of the three theories.

When each element was tested using a one-way chi-square to determine if it occurred more frequently than what would be expected due to chance alone, many significant findings were noted. Specifically, for Aristotle's persuasive appeals, appearances of pathos and logos were statistically significant (see Table 3). For Berger's STEPPS, triggers, emotion, public, and practical value appearances were statistically significant, indicating that some of these elements were more likely to appear in the videos than would be expected due to chance and some of them were less likely to appear in the videos than they would due to chance alone. Finally, every element of Monroe's Motivated Sequence appeared in my sample at a frequency that was either significantly more frequent than expected or significantly less frequent than expected. Table 3 below provides the chi-square statistics, degrees of freedom, and p-values for each theoretical element.

Table 3

Comparison of appearances of each theoretical element in NPO videos with expected frequencies**

Theory Element	Appearances	Percentage of Sample	Chi-Square Results*
Aristotle's Persuasive Appeals			
Ethos	28	56%	$X^2(1, N=50, p=.396)$
Pathos	33	66%	$X^2(1, N=50, p=.024)$
Logos	18	36%	$X^2(1, N=50, p=.048)$
Berger's STEPPS			
Social Currency	24	48%	$X^2(1, N=50, p=.777)$
Triggers	36	72%	$X^2(1, N=50, p=.002)$
Emotion	33	66%	$X^2(1, N=50, p=.024)$
Public	18	36%	$X^2(1, N=50, p=.048)$
Practical Value	15	30%	$X^2(1, N=50, p=.005)$
Stories	23	46%	$X^2(1, N=50, p=.572)$
Monroe's Motivated Sequence			
Attention	38	76%	$X^2(1, N=50, p<.001)$
Need	16	32%	$X^2(1, N=50, p=.011)$
Satisfaction	13	26%	$X^2(1, N=50, p<.001)$
Visualization	17	34%	$X^2(1, N=50, p=.024)$
Action	16	32%	$X^2(1, N=50, p=.011)$

*Values calculated before elimination of outlier from the data set.
**Note: categories are not mutually exclusive

With respect to RQ1, *ethos* appeared almost exactly as frequently as one would expect due to chance (56%), whereas *pathos* appeared significantly more than (66%), and *logos* appeared significantly less than (36%) what is expected due to chance alone ($f_{expected} = 25$). Of the three persuasive appeals, Pathos was the most used Aristotelian persuasive appeal in the nonprofit Instagram videos studied (RQ1), appearing in 33 of the 50 videos in the sample (see Table 3). Sixteen videos only used one of Aristotle's persuasive appeals, 18 used two, and 9 used all three.

Four elements of Berger's STEPPS appeared at statistically significant frequencies: triggers, emotion, public, and practical value (H2). *Triggers* appeared in 36 videos (72%), *emotion* appeared in 33 of the videos (66%), both more than could be predicted due to chance alone (Table 3). *Public* appeared in 18 videos (36%) and *practical value* in 15

videos (30%), both notably less than what one would expect due to chance. *Social currency* and *stories* did not occur significantly more or less likely than what could be predicted by chance, being coded as present in 24 (48%) and 23 (46%) videos, respectively ($f_{expected} = 25$). In order of descending frequency, the STEPPS appeared as follows: *triggers*, *emotion*, *social currency*, *stories*, *public*, and *practical value* (RQ3). Overall, 48 videos contained at least one element of STEPPS (Table 3). Four videos had only one, 14 had only two, 11 videos had three, 14 had four, and two had five. Only three videos used all six of Berger's STEPPS.

In terms of RQ5 and RQ6, every element of Monroe's Motivated Sequence appeared in the sample, and at significantly different frequencies than expected ($f_{expected} = 25$). Instead, they appeared in each video in the following frequencies: *attention* (38), *need* (16), *satisfaction* (13), *visualization* (17), *action* (16). In other words, 76% of the videos analyzed had an attention-getter, 32% of the videos stated a need, 26% satisfied that need, 34% provided a visualization of that satisfaction, and 32% had a call to action. The attention-getting element was the only part of Monroe's sequence that occurred significantly more often than what would be expected due to chance alone. The rest of the elements were present at significantly lower frequencies than expected. Only two videos of the 50 included all five steps of MMS.

Further analyses of co-occurrences showed that *ethos* was the only appeal used in just two videos, *pathos* was used in isolation in ten videos, and *logos* was used alone in 4 videos (see Table 4). *Ethos* and *pathos* appeared in the same video 22 times. *Ethos* and *logos* appeared in the same video 13 times. Finally, *pathos* and *logos* appeared in the

same video 10 times (Table 4). Nine videos were coded as having all three appeals present.

Table 4

Co-occurrence frequencies for Aristotle's appeals*

	Ethos	Pathos	Logos
Ethos	2	23	13
Pathos		10	10
Logos			4

*Values calculated before elimination of outlier from the data set.

Data also showed that, of Berger's STEPPS, *social currency* appeared most frequently with *emotion* (18), *emotion* and *triggers* appeared most frequently together (23), *practical value* appeared most frequently with *social currency* (11), and that *public* and *stories* appeared most frequently with *emotion* (13, 18). Only *triggers* (4) and *public* (2) appeared by themselves in videos. Every other element was at least paired with one other when used (see Table 5).

Table 5

Co-occurrence frequencies for Berger's STEPPS*

	Social Currency	Triggers	Emotion	Practical Value	Public	Stories
Social Currency	0	15	18	11	8	13
Triggers		4	23	9	17	17
Emotion			0	9	13	18
Practical Value				0	6	8
Public					2	11
Stories						0

*Values calculated before elimination of outlier from the data set.

As previously mentioned, only two of the 50 videos analyzed follow Monroe's complete, five-step sequence. Seven videos followed four of the five steps, six followed

three of the five, five followed two of the five, and 12 used only one of the five steps of MMS (see Table 6).

Table 6

Combinations in which MMS steps appeared in NPO videos*

# of Videos	% of Sample	Attention	Need	Satisfaction	Visualization	Action
2	4%	✓	✓	✓	✓	✓
2	4%	✓	✓	-	✓	✓
5	10%	✓	✓	✓	-	✓
1	2%	✓	-	-	✓	✓
4	8%	✓	✓	-	-	✓
1	2%	✓	-	✓	-	✓
1	2%	✓	-	-	-	✓
4	8%	-	-	✓	✓	-
5	10%	-	-	✓	-	-
7	14%	-	-	-	✓	-
18	36%	-	-	-	-	-

*Analysis done before elimination of outlier from the data set.

All 20 videos that followed two or more of Monroe's steps satisfied them in the order Monroe originally proposed (RQ7). Of all the combinations these steps could have possible been used in, they appeared in one of 12 ways in each instance (see Table 6). The majority of the sequences seen followed the first (*attention*) and last (*action*) steps of MMS, with most of the variation seen occurring between steps two and four.

Engagement rates of sample videos

After removing one outlier from the distribution, the like rates for the 49 remaining videos ranged from 0.031% to 5.71% (M = 0.865%, SD = 1.31%). Table 7 provides descriptive statistics for like, engagement and comment rates. The lowest like rate belonged to the United States Fund for UNICEF video, which had a total of 268 likes and 869,000 Instagram followers on the day data were collected, producing a like rate of

0.031%. The highest like rate belonged to the Good360 video, which had a total of 170 likes and 2,995 followers on the day data were collected, producing a like rate of 5.71%. The highest comment rate and highest overall engagement rate also belonged to Good360. The organization's video received 7 comments, producing a comment rate of 0.267% (M = 0.033, %, SD = 0.056%). The overall engagement rate for the video was 5.94% (M = 0.888%, SD = 1.35%). The video with the lowest comment rate belonged to the Public Broadcasting Service. The organization had 1 million Instagram followers on the day of data collection and the video received 5 comments, producing a rate of 0.001% (M = 0.033%, SD = 0.056%). The lowest engagement rate belonged to the United States Fund for UNICEF video. The organization had 869,000 Instagram followers on the day of data collection and the video received 274 engagements (likes and comments), producing an engagement rate of 0.032% (M = 0.888%, SD = 1.35%).

Table 7

Min. and max. engagement rates and the corresponding means and standard deviations*

	Like Rate	Comment Rate	Engagement Rate
N	49	49	49
Mean	0.865%	0.033%	0.888%
Std. deviation	1.31%	0.056%	1.35%
Minimum	0.031%	0.001%	0.032%
Maximum	5.71%	0.267%	5.94%

*Values calculated after elimination of outlier.

Relationship between theoretical presence and engagement rates

Table 8 contains the descriptive data surrounding the groups of Aristotle's persuasive appeals and their corresponding engagement rates. Results showed that videos with no appeals present had higher like rates, comment rates, and engagement rates than

videos with one or more appeals. The one-way ANOVA conducted to investigate Aristotle's persuasive appeals and the effects they have on video engagement produced the results presented in Table 9. None of the tests showed significant relationships between the persuasive appeals used and the likes, comments, or overall engagement received (RQ2).

Table 8

Mean engagement rates based on number of Aristotle's persuasive appeals used*

	# of appeals	N	Mean	Std. Deviation	SE
Like Rate					
	No Appeal	7	1.63%	2.12%	0.800
	One Appeal	16	0.39%	0.32%	0.081
	>1 Appeals	26	9.52%	1.36%	0.267
Comment Rate					
	No Appeal	7	0.08%	0.12%	0.045
	One Appeal	16	0.01%	0.02%	0.004
	>1 Appeals	26	0.03%	0.04%	0.008
Engagement Rate					
	No Appeal	7	1.69%	2.19%	0.827
	One Appeal	16	0.40%	0.33%	0.081
	>1 Appeals	26	0.98%	1.39%	0.273

*Values calculated after elimination of outlier from the data set.

Table 9

One-way ANOVA results for Aristotle's appeals and video engagement rates*

	F	df1	df2	*p*
Like Rate	2.980	2	13.483	.085
Comment Rate	2.770	2	13.781	.097
Engagement Rate	3.054	2	13.463	.081

*Values calculated after elimination of outlier form the data set

With respect to assessing RQ4 and RQ8, the researcher looked at the number of elements that appeared for Berger's STEPPS and Monroe's Motivated Sequence and

compared that with online engagement metrics. Preliminary tests of underlying assumptions for a correlation analysis (i.e., linearity) between the number of STEPPS and the engagement metrics for that video did not suggest that any correlations existed. However, tests comparing the number of MMS elements present in a video and the engagement metrics received by that video suggested two possible correlations (see Figures 1-6). Further analyses, however, could not confirm any statistically significant correlations. Although the scatterplot in Figure 1 suggests a slight linear relationship between the number of steps of Monroe's Motivated Sequence present in a video and like rate, the calculated correlation statistic was r (47) = -0.124, p = .396 (see Table 10). The relationship between number of steps of Monroe's Motivated Sequence present in a video and overall engagement produced a similar nonsignificant result, r (47) = -.122, p = 0.405 (Table 10; Figure 2).

Table 10

Correlation Matrix for # of MMS steps against like rate and engagement rate*

		# of MMS	Like Rate	Engagement Rate
# of MMS	Pearson's *r*	-		
	df	-		
	p-value	-		
Like Rate	Pearson's *r*	-0.124	-	
	df	47	-	
	p-value	0.396	-	
Engagement	Pearson's *r*	-0.122	1.000	-
Rate	df	47	47	-
	p-value	0.405	<0.001	-

*Values calculated after elimination of outlier form the data set.

Figure 1

Scatterplot of Like Rate vs. Number of MMS Steps Present in a Video

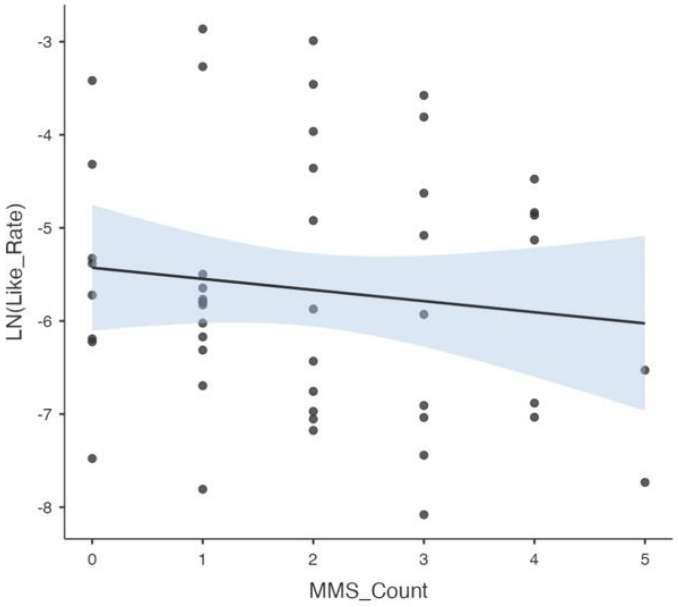


Figure 2

Scatterplot of Engagement Rate vs. Number of MMS Steps Present in a Video

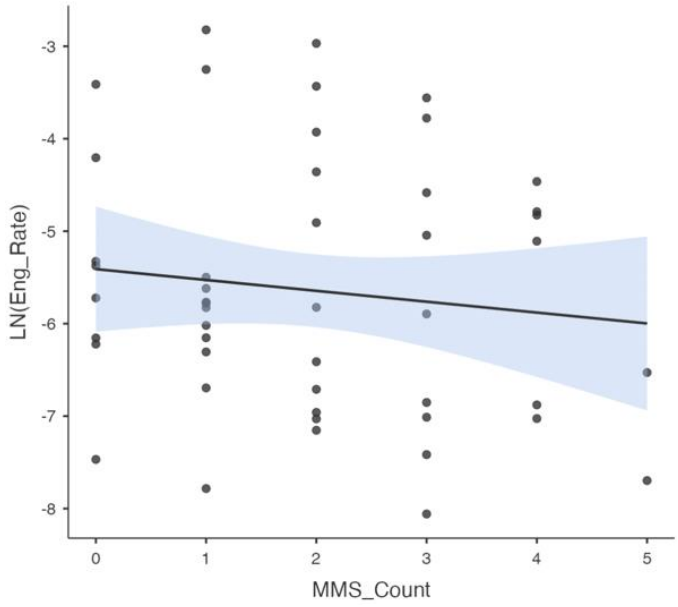


Figure 3

Scatterplot of Comment Rate vs. Number of MMS Steps Present in a Video

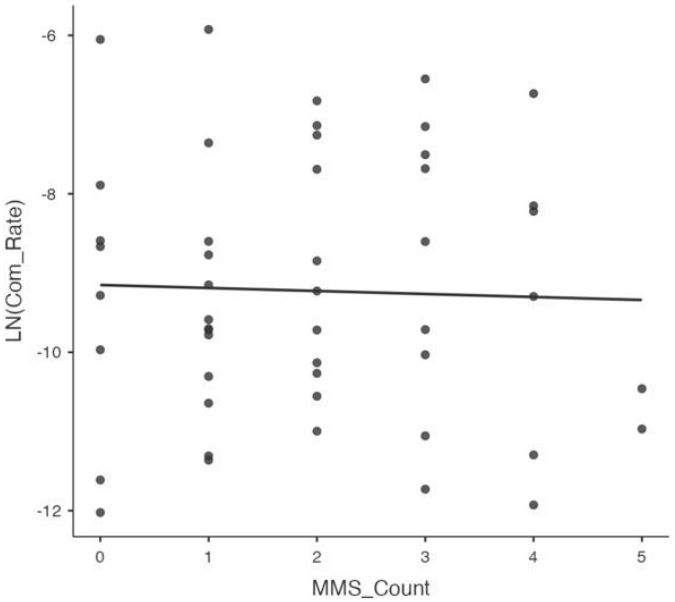


Figure 4

Scatterplot of Like Rate vs. Number of Berger's STEPPS Present in a Video

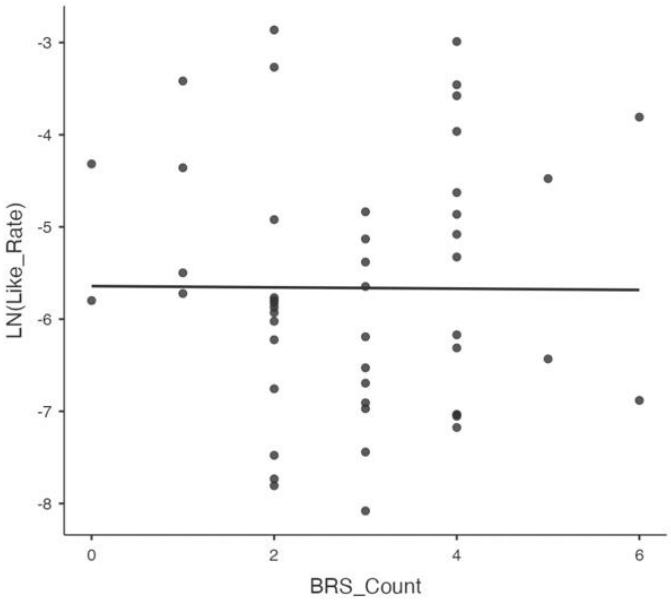


Figure 5

Scatterplot of Comment Rate vs. Number of Berger's STEPPS Present in a Video

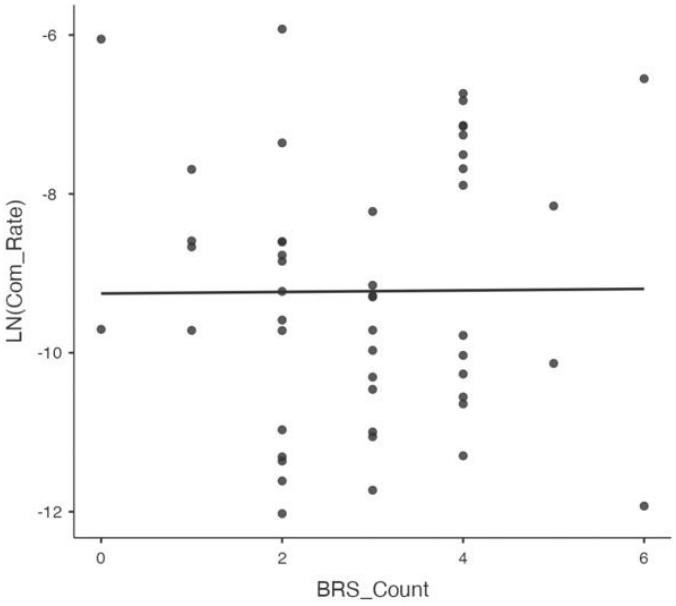
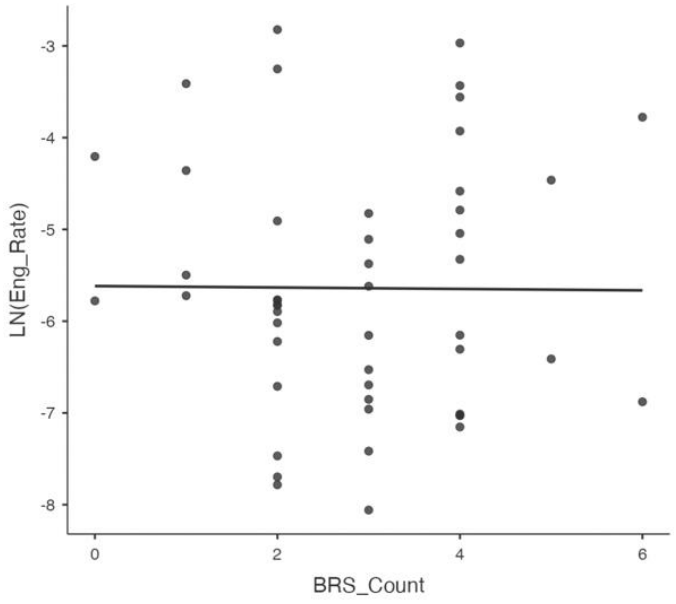


Figure 6

Scatterplot of Engagement Rate vs. Number of Berger's STEPPS Present in a Video



DISCUSSION

Preliminary assessments of the data showed that content in 49 of the 50 nonprofit Instagram videos could be categorized as having one or more characteristics of Aristotle's persuasive appeals, Jonah Berger's STEPPS, and/or Alan Monroe's Motivated Sequence. Only one video failed to satisfy any of the criteria put forth. Overall, 48 videos were characterized as having one or more of Berger's STEPPS, which is higher than the prevalence seen for both Aristotle's appeals (43) and MMS (32). As a theory, Berger's STEPPS has the most attributes, providing each video more ways in which to fit into its framework. Despite that, Aristotle's theory has only three attributes, and still captured more videos than MMS, which has five steps in its sequence. Thus, the finding of Berger's STEPPS outnumbering the other message features described by Aristotle and Monroe can not be chalked up to the number of theoretical elements available. Instead, the frequency of coding for Berger's STEPPS was likely due to the theory's focus on why information spreads. The theory was developed based on themes pulled from a range of contagious content (Berger, 2013), so it is not surprising that STEPPS are seen most in these videos created for social media, specifically Instagram, where the entire purpose is to "more effectively reach target publics" than the NPO can through more "expensive, printed communication" (Auger, 2014, p. 239).

Aristotle's Persuasive Appeals in Nonprofit Instagram Videos

Results of the analyses for this study showed Aristotle's appeals appearing in 86% (43/50) of videos in the sample. Auger (2014) also found that most nonprofit social media content contains at least one persuasive appeal. In her study, 60% (192/320) of the tweets she analyzed contained either *ethos*, *pathos*, *logos*, or some combination of them (Auger, 2014). The first hypothesis (H1) predicted that Aristotle's persuasive appeals would appear more in the NPO videos than they would due to chance alone. The individual chi-square analyses run for each of Aristotle's appeals were done under the assumption that they would appear 25 times and be absent 25 times if left up to chance. *Ethos* appeared in 28 videos, almost exactly as one would expect due to chance, X^2(1, N=50, p=.396), *logos* appeared in 18 videos slightly less than one would expect due to chance, X^2(N=50, p=.048), and *pathos* appeared in 33 videos, which is significantly more than one would expect due to chance, X^2(N=50, p=.024).

RQ1 questioned if *pathos* would be the most used Aristotelian persuasive strategy in NPO videos on Instagram. As previously mentioned, descriptive data showed that of 50 videos, an appeal to *ethos* was seen in 28, an appeal to *pathos* was seen in 33, and an appeal to *logos* was seen in 18, confirming *pathos* appeared most often in the sample, which aligns with existing research. Lamichhane (2017) found appeal to emotion to be "all-pervading" in his study of print advertisements (p. 77), and Auger (2014) found *pathos* to be the most used appeal, even across three different communication categories.

This research also questioned if use of Aristotle's persuasive appeals would influence the number of likes and comments a video received (RQ2). The one-way ANOVA run produced large F statistics (Table 9) which would typically suggest some

sort of a relationship between the number of appeals used and the likes and comments on a video, but the test *also* generated nonsignificant p-values (Table 9). Even though the results are nonsignificant, the p-values *are* approaching significance which suggests that a larger sample size could yield more significant results.

Berger's STEPPS in Nonprofit Instagram Videos

Based on existing literature, this thesis also set out to determine if *emotion* appears most frequently of all STEPPS elements apparent in the data set (RQ3) and to test the hypothesis that each element occurs at a different frequency than would be seen due to chance alone (H2). In the sample used for this study, 72% of videos involved *triggers*, 66% involved *emotion*, 48% involved *social currency*, 46% involved *stories*, 36% involved *public* and 30% involved *practical value* (see Table 3). Clearly, *triggers* was the most used element from Berger's STEPPS framework in this sample, not *emotion* (RQ3). Despite this, it is important to note that emotional elements prevail in STEPPS, similarly to how they did in terms of Aristotle's appeals. In Pressgrove, et al. (2018), *emotion* and *triggers* were observed in 47.8% and 39.2% of their sample, respectively, as the second and fourth most common STEPPS elements. The same study found that *social currency* appeared in 55.3% of the sample, *public* appeared in 43.9% of the sample, *practical value* appeared in 7.6% of the sample, and *stories* appeared in 3.3% of the sample. Though the findings of my study differ from the findings of Pressgrove, et al. (2018), the latter analyzed textual content on Twitter, so it might be expected that the results could vary from those for video content on Instagram. Studies that apply Berger's STEPPS to videos are lacking. As such, there is no explicit expectation to which my findings can be compared.

Berger describes *triggers* as things that link a message to prevalent, environmental cues (2013). Based on my results, 72% of the NPOs in this study included content that would do this, thus increasing the chances of their videos to become popular. In the same breath, it can be said that the 66% of NPOs in the sample that used emotional cues in their video aimed to connect with their audiences. Berger urges that "rather than harping on features or facts, [marketing messages] need to focus on feelings; the underlying emotions that motivate people to action" (2013, p. 113). The data obtained for this study shows most nonprofit organizations in the sample are attuned to this need and are creating and disseminating videos containing emotional cues.

The fourth research question for this study prompted investigation into whether usage of more elements of STEPPS in a single video increased the likes and comments that video received (RQ4). The correlations tested showed that no linear relationship existed between the number of STEPPS used in each video and the like rates, r (47) = -0.007, p=.963, comment rates, r (47) = -0.008, p=.957, or engagement rates, r (47) = -0.008, p=.958, calculated. It can be assumed then, that there are no linear relationships between the number of STEPPS elements present in a message and the number of likes, comments, or overall engagement a video generates. The lack of linear relationships may reflect the true nature of the relationship between Berger's STEPPS and engagement. Another explanation for these findings, however, might be that the analysis was underpowered. The study had 50 videos in its sample, which is a rather small sample size for a study of marketing communication effects. Additionally, it is possible that the relationship between Berger's STEPPS and engagement is nonlinear, however, the scatterplots presented in Appendix D do not seem to suggest nonlinear relationships. As

such, it seems most likely that the analyses may have been underpowered and unable to detect an effect in the r = .1 to .35 range.

Monroe's Motivated Sequence in Nonprofit Instagram Videos

Before investigating MMS steps individually, it was important to first establish if they were present in NPO videos at all (RQ5). This question was especially important to explore considering that MMS was developed based on speeches, not videos. In attempt to answer the third research question, the researcher found that 64% of the videos in the sample featured at least one step of MMS and over half of that 64% featured two or more steps of MMS (Table 6). As such, it appears that MMS *is* relevant to a video-based sample, which adds to our understanding of the literature around which types of communication might contextually fit within Monroe's Motivated Sequence.

The next research question (RQ6) related to MMS asked if the steps occurred at statistically significant frequencies. The data in Table 3 responds with the affirmative. The individual chi-square tests run for each of the five steps showed that *attention* occurred significantly more than it would due to chance alone, $X^2(1, p<.001)$, and that *need*, $X^2(1, p=.011)$, *satisfaction*, $X^2(1, p<.001)$, *visualization*, $X^2(1, p=.024)$, and *action*, $X^2(1, p=.011)$, all appeared significantly less than they would due to chance.

RQ7 focused on the order in which the MMS steps occurred in each video. In all, data showed that 20 videos had two or more of the steps of MMS and 100% of these videos featured MMS in the order it appears as the theory was written. The urge to investigate this phenomenon came from Micciche, et al. (2000). That article explored the use of MMS in different orders and found no significant impact on the effectiveness of a message. Should there have been significant data showing the usage of MMS out of order

in NPO videos on Instagram, further analyses would have been carried out to investigate the effect of nonsequential ordering on the number of likes and comments earned by each video. Nonetheless, the fact that MMS was seen in more than half of the sample, and that it was used in its original order is noteworthy. This study highlights that this theory, developed to guide persuasive speech, holds true for marketing videos to some extent.

The final research question contained in this study looked at the effects of the number of MMS steps in a video on the number of likes and comments that video received (RQ8). Scatterplots only suggested the very slight possibility of linear relationships between number of MMS steps followed and the like rates (Figure 1) and engagement rates (Figure 2) of the NPO videos in the sample. Further analysis of the relationship of number of MMS steps and like rate did not show significant linear relationships. Thus, the use of the theoretical framework and the success of those videos in terms of engagement was not supported by the sample. Of note is the fact that Monroe proposed the Motivated Sequence as an individual phenomenon. A single sequence that, when followed, molds a persuasive and convincing argument (Monroe, 1945). These correlation analyses were conducted in attempt to determine if the more convincing arguments, as determined by how well an NPO's video fulfilled MMS, would generate more engagement in the form of likes and comments. Unfortunately, it is not possible to draw this conclusion from this study. Nevertheless, similar statistical power issues could have been at play when testing MMS and engagement as was noted for the analysis of Berger's STEPPS and engagement. With a larger sample size, MMS might still show to have an effect on engagement, albeit a rather small effect (likely less than $r = .40$).

LIMITATIONS & FUTURE RESEARCH

This study has inherent limitations based on the selection of a content analysis method and its focus on nonprofit organizations. All inferences made using the coding scheme were subjective and were influenced by any biases and preconceived opinions that existed prior to this research, despite all effort to eliminate bias with an explicitly outlined coding scheme. The researcher is a graduate level student with experience analyzing videos and social media content for a variety of organization types. It is not guaranteed that the average Instagram user that follows nonprofit organizations interprets their content in the same way that the researcher does. Even though the data were coded and analyzed quantitatively, the basis of this study is subjective. It is also possible that the data obtained could appear skewed when compared to other organizations, like clothing brands, restaurants, or for-profit organizations in general.

Another important note is that the videos in the sample were analyzed independent of the captions posted with them. This was done to ensure the analysis captured only communication in video format and ignored any contributions made by separate text. However, many organizations use captions to provide context and additional information about their posts. It is possible that the elimination of captions may have detracted from the coders' abilities to identify specific theoretical elements within each post, which subsequently could have dampened the assessment of the of the video messages' effectiveness.

In addition, the sample size for this thesis (N=50) was significantly smaller than those used for similar studies. The sample size was intentionally kept manageable so that the researcher could conduct a thorough analysis of all three theories introduced in the literature review for this study. As a result, these findings are likely impacted by sampling error which could affect their generalizability to other nonprofit videos on Instagram. More data from a larger sample may have yielded more significant results or even shifted the outcomes completely. The outlier identified early-on increased the sampling error as well, reducing the sample size to N=49. Even though the Instagram video analyzed for Cross Catholic Outreach was eliminated in the analysis, it remains valuable. This video was posted in collaboration with a celebrity account, which is likely the reason it had such higher engagement numbers than the other videos (Table 1). There was not enough time to investigate this over the course of this study, but future research into this case and this video's performance may yield interesting results.

It would prove valuable for any continuation of this study or similar research in the future to expand the sample size in effort to achieve better, more representative and, therefore, generalizable results. Future studies would also benefit from creating additional variables that code for the predominant persuasive appeal and/or element of STEPPS used in each video as opposed to simply coding for the presence of each appeal or element. Coding for the dominant element would create mutually exclusive categories, which would open the possibility of running more chi-square tests to compare the significance of the frequencies of each appeal/element in the data.

CONCLUSION

This study set out to answer the following overarching question: "Does the implementation of Aristotle's persuasive appeals, Jonah Berger's STEPPS, and/or Alan Monroe's Motivated Sequence affect the success of nonprofit videos on Instagram?" This study is one of the first content analyses of video content on Instagram that assesses the application of Aristotle's persuasive appeals, Berger's STEPPS and Monroe's Motivated Sequence. The findings were able to determine that *pathos* was the most used of Aristotle's persuasive appeals in nonprofit Instagram videos and that it appeared in the videos significantly more than it would due to chance alone. Additionally, the study found that *triggers* were the most common element of Berger's STEPPS used in nonprofit Instagram videos and determined that most of the videos followed Monroe's Motivated Sequence to some extent. Analysis of Aristotle's appeals and Berger's STEPPS highlighted the prevalence of emotional cues in nonprofit videos, suggesting that a deeper dive into these phenomenon could prove fruitful. The frequency at which Monroe's Motivated Sequence was used in the videos in the sample also points toward a meaningful connection that could shape future research. In terms of engagement, there was insufficient evidence to suggest that any of the three theories made the videos more or less likely to garner likes and comments. Although this finding was surprising, this study is one of first of its kind. Additional research is needed to further explore factors that affect consumer engagement with nonprofit videos on Instagram.

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APPENDIX A

Rank	Organization	Rank	Organization
73	Heart to Heart International	99	Humane Society of the United States
42	Wounded Warrior Project	44	Midwest Food Bank
18	The Arc of the United States	21	Planned Parenthood Federation of America
89	North Texas Food Bank	76	Special Olympics
56	Michael J. Fox Foundation for Parkinson's Research	53	Rotary Foundation of Rotary International
31	American Heart Association	29	MAP International
67	Environmental Defense Fund	64	Houston Food Bank
14	American National Red Cross	7	Habitat for Humanity International
95	JDRF International	96	Second Harvest Heartland
23	HealthWell Foundation	38	Food for the Poor
79	Cleveland Clinic Foundation	81	Metropolitan Museum of Art
5	Direct Relief	17	Nature Conservancy
60	American Jewish Joint Distribution Committee	92	Food Bank of Central and Eastern North Carolina
10	Samaritan's Purse	46	Entertainment Industry Foundation
37	Easter Seals	69	Carter Center
50	Cross Catholic Outreach	24	Catholic Relief Services
84	Scholarship America	55	Young Life
27	International Rescue Committee	1	Feeding America
72	Disabled American Veterans	78	El Pasoans Fighting Hunger
3	United Way Worldwide	34	Save the Children Federation
91	Mercy Ships	88	PATH
48	American Civil Liberties Union and Foundation	15	United States Fund for UNICEF
8	Goodwill Industries International	58	United Negro College Fund
65	Boston Children's Hospital	2	Good 360
12	Boys & Girls Clubs of America	68	Public Broadcasting Service

Appendix A. Nonprofit organizations in the sample population

APPENDIX B

Sample of Codebook Used for Data Collection

Instructions

1. Read entire definitions and examples a few times before beginning to code.
2. Open the spreadsheet document and fill out the **Coder Information** tab.
3. Browse the **Code Sheet** to develop a general understanding.
4. Copy the links in the spreadsheet into your web browser to view each video and fill in the information needed according to the definitions below.
5. Captions can be used to provide context but are **not** to influence the coding. Be sure to code for the information the video provides in isolation.
6. Unless otherwise noted, mark **1 for present/yes**, **0 for not present/no**.
7. Include only the number of your response when possible. If you have a question or concern, please indicate your best response, and make a note of your question.
8. If a video has been deleted, highlight the organization name in **RED** on coding sheet and move on.

Aristotle's Rhetorical Appeals (Source: Lamichhane, 2017)

AA. Ethos: The video emphasizes the credibility and trustworthiness of the person/s delivering the message. Based on who is delivering the message, the audience is persuaded to believe them.

- **Ask yourself:**
  - Does this person know what they are talking about?
  - Does this person work with the NPO or benefit from the NPO's cause? o Does this person have public influence? Are they a celebrity? **IF YES, CODE AS PRESENT.**

AB. Pathos: The video motivates people to feel things about what they see, read, or hear. Viewers will associate these feelings with the message or cause and form an emotional connection.

- *Examples:* images of sick children or animals; images of people affected by the cause; positive or negative mood music; words that suggest *admiration, awe, humor, anger, sadness, anxiety,* etc.

AC. Logos: The video encourages viewers to think critically about the information they are being presented. Videos present facts and data using textual, audio, or visual cues.

- *Examples:* presenting statistics; identifying the problem or crisis that the organization aims to solve; presenting the organization's cause and the effects that cause will have on those affected.

Berger's STEPPS (Source: Final codebook for Pressgrove, et al., 2018)

BA. Social Currency: The video presents information that would make you look good for knowing it or has a "wow" factor that sets it apart from others like it.

Does this video:

- Create an atmosphere of community for viewers?
- Tap into strong brand loyalty to the point where viewers will share the NPO with others?
- Provide of valuable and shareable information **other than** telling what the NPO/person did? **IF YES, CODE 1.**

BB. Triggers: The video contains an everyday object, image, or phrase that reminds viewers of the information, NPO or cause; something that connects to an experience, geography, age, events - so it reinforces the message.

- *Examples:* Did something in society/news elicit the video or is the video related to another product/experience (e.g. celebrity participation or commentary, connecting the challenge to something happening in the world like a drought, or war; tying the challenge to a news story)
- **Ask yourself this:**
    - Is there something in the video the viewer is likely to see in everyday life that could remind them of the cause? o Is the video related to current events like (e.g. election year, Israeli-Palestinian war, Ukraine) **IF YES, CODE AS PRESENT.**

BC. Emotion: Motivates people to feel things about what they see, read, or hear. Viewers will associate these feelings with the message or cause and form an emotional connection.

- *Examples:* images of sick children or animals; positive or negative mood music; words that suggest *admiration, awe, humor, anger, sadness, anxiety,* etc.
- **Will overlap with (AB).**

BD. Practical Value: The video provides useful or practical information;

- *Example:* description of an illness or phenomenon; information about what the NPO does
- **Does this video:**
    - Present facts?
    - Outline a process? **IF YES, CODE AS PRESENT.**
- **May overlap with (AC).**

BE. Public: When we can see other people doing something, we're more likely to imitate it; "monkey see, monkey do"

- *Example:* people participating in a challenge, or event; people donating money

BF. Stories: The video presents a sequence of events or a narrative or storyline of any type. The story may be presented as audio, photos, or sequenced clips. You are looking to see if the post is wrapped in an anecdote, descriptive recounting, tale, chronicle or larger allegory.

- *Example:* This may manifest as background information on living with a condition or personal connection. It could be sharing the story of why someone is not participating/supporting, or the story of the NPO helping those in need.

Monroe's Motivated Sequence (Source: Hummadi, et al., 2019)

CA. Attention: The video draws the audience's attention to the topic and motivates them to receive the problem the NPO is presenting.

- *Examples:* relating to the audience, showing the importance of the topic, making a startling statement, arousing curiosity or suspense, posing a question, telling a dramatic story, or using visual aids
- **Does this video:**
    - Present information that requires more context, thus making the viewer want to continue watching?
    - Present a rhetorical question or a cliffhanger close to the beginning? **IF YES, CODE AS PRESENT.**

CB. Need: The video contains a statement of the problem or the development of it. This step operates in having the audience feel a need for change. This step should demonstrate that there is a serious problem with the existing conditions in order to convince them that something must be done, felt, or decided

- *Examples:* speakers present an analysis of what is wrong, condemn existing strategies, or highlight flaws and failures in current situations
- **Does this video:**
    - EXPLICITLY state a need for the NPO or its cause? **IF YES, CODE AS PRESENT.**

CC. Satisfaction: Offering solutions to the problems presented and handling any objections to the solutions; Gets the audience to agree that the belief or action proposed is the correct one.

- *Examples:* speakers explain their proposals through presenting details about the NPOs plans

CD. Visualization: The video depicts the benefits of the NPO cause or initiative. It projects the audience into the future by presenting an image of future conditions. Speaker

offers plans and solutions and intensifies the audience's desire by visualizing the fruition of these plans, beliefs and solution if implemented.

- *Examples:* video paints a vivid picture to show audience how those in need will benefit from their cause, and what bad results will take place if the organization is unable to intervene; "A $5 donation takes 10 homeless people off the street"
- **Does this video:**
- State what things will be like if the NPO is successful? **IF YES, CODE AS PRESENT.**

CE. Action : The video translates the desire created in the visualization step into a fixed attitude or belief. Speaker tells the viewers how they can contribute towards their cause.

- **Does this video:**
    - Explicitly prompt the viewer to do something with audio OR imagery?

IF YES, CODE AS PRESENT.

APPENDIX C

Organization Name	Followers	Video Likes	Video Comments	Total Engagement
Heart to Heart International	2,674	12	0	12
Wounded Warrior Project	183,000	212	10	222
The Arc of the United States	3,827	106	2	108
North Texas Food Bank	16,600	67	0	67
Michael J. Fox Foundation for Parkinson's Research	192,000	165	4	169
American Heart Association	408,000	165	3	168
Environmental Defense Fund	45,500	39	1	40
American National Red Cross	298,000	297	17	314
JDRF International	838,00	151	1	152
HealthWell Foundation	1,274	16	2	18
Cleveland Clinic Foundation	179,000	167	2	169
Direct Relief	34,900	50	0	50
American Jewish Joint Distribution Committee	6,941	78	1	79
Samaritan's Purse	221,000	437	1	438
Easter Seals	6,444	18	0	18
Cross Catholic Outreach	4,812	16,330	284	16,614
Scholarship America	5,806	18	0	18
International Rescue Committee	303,000	310	1	311
Disabled American Veterans	64,100	294	2	296
United Way Worldwide	57,500	43	1	44
Mercy Ships	113,000	398	11	409
American Civil Liberties Union and Foundation	1,900,000	1,113	29	1,142
Goodwill Industries International	64,500	131	5	136
Boston Children's Hospital	76,300	605	6	611
Boys & Girls Clubs of America	53,100	110	2	112
Humane Society of the United States	423,000	1,286	28	1,314
Midwest Food Bank	1,398	30	1	31
Planned Parenthood Federation of America	1,000,000	3,031	60	3,091
Special Olympics	183,000	1,334	17	1,351
Rotary Foundation of Rotary International	299,000	841	42	883
MAP International	1,683	12	1	13
Houston Food Bank	21,200	1,066	22	1,088

Habitat for Humanity International	151,000	242	5	247
Second Harvest Heartland	4,342	26	1	27
Food for the Poor	9,098	88	4	92
Metropolitan Museum of Art	4,300,000	10,414	49	10,463
Nature Conservancy	929,000	406	15	421
Food Bank of Central and Eastern North Carolina	7,438	43	1	44
Entertainment Industry Foundation	5,433	16	0	16
Carter Center	43,900	1,672	27	1,699
Catholic Relief Services	29,900	36	0	36
Young Life	167,000	5,478	30	5,508
Feeding America	161,000	141	1	142
El Pasoans Fighting Hunger	2,188	27	0	27
Save the Children Federation	1,400,000	44,103	1,111	45,214
PATH	10,900	28	1	29
United States Fund for UNICEF	869,000	268	6	274
United Negro College Fund	39,800	755	27	782
Good 360	2,995	170	7	177
Public Broadcasting Service	1,000,000	565	5	570

Table 1. Followers, likes, comments and total engagement for each NPO video.

APPENDIX D

Scatterplots of Berger's STEPPS and MMS Against Like, Comment, and Engagement Rates

Figure 1

Scatterplot of Like Rate vs. Number of MMS Steps Present in a Video

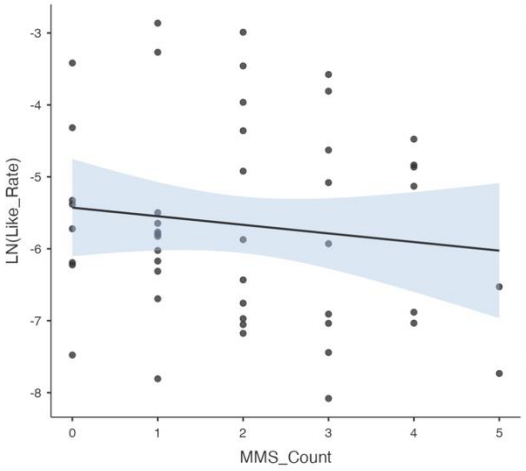


Figure 2

Scatterplot of Engagement Rate vs. Number of MMS Steps Present in a Video

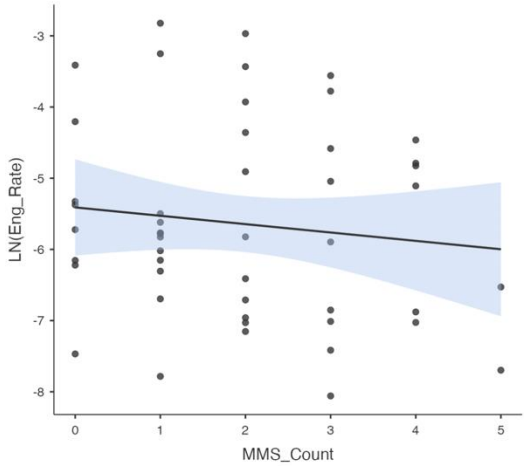


Figure 3

Scatterplot of Comment Rate vs. Number of MMS Steps Present in a Video

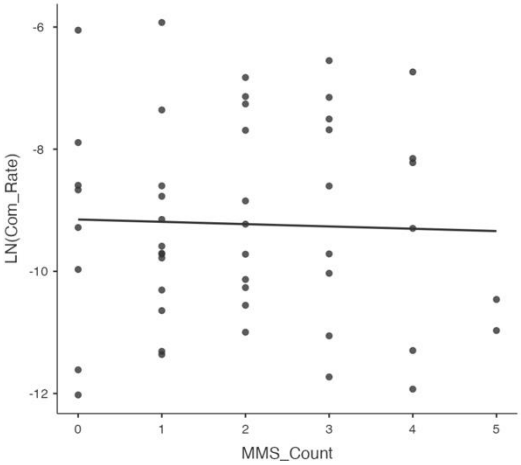


Figure 4

Scatterplot of Like Rate vs. Number of Berger's STEPPS Present in a Video

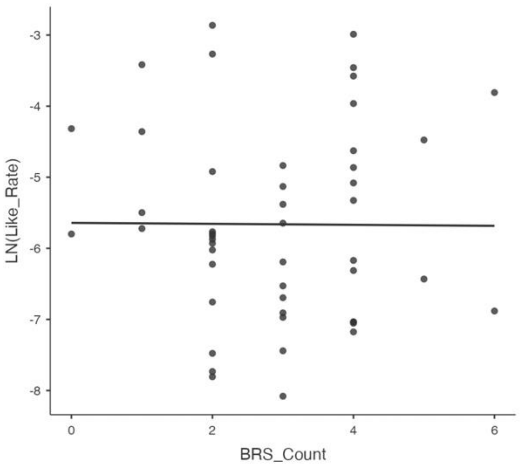


Figure 5

Scatterplot of Comment Rate vs. Number of Berger's STEPPS Present in a Video

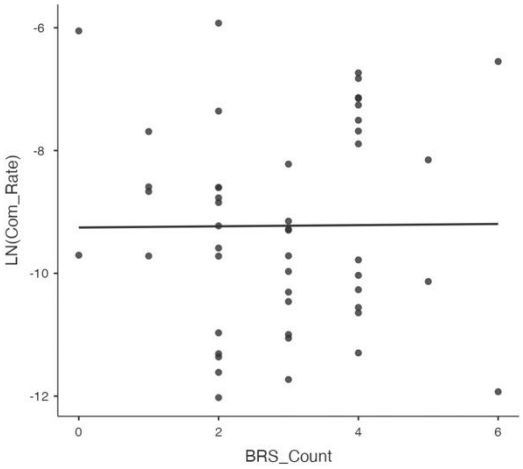
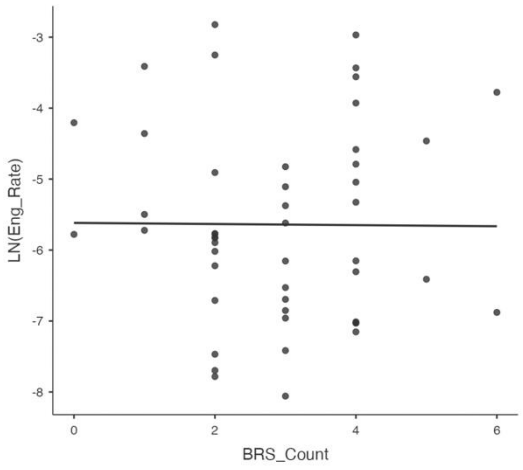


Figure 6

Scatterplot of Engagement Rate vs. Number of Berger's STEPPS Present in a Video



CURRICULUM VITA

NAME: Aiko A. A. A. Jones

ADDRESS: Department of Communication
Strickler Hall
2010 S Avery Court Walk
University of Louisville
Louisville, KY 40208

DOB: St. Andrew, Jamaica - August 12, 1999

EDUCATION
& TRAINING:

B.A., Biology
University of Louisville
2018-22

B.A., Communication
University of Louisville
2018-22

M.A., Communication
University of Louisville
2022-24

PROFESSIONAL SOCIETIES: Omicron Delta Kappa
2023-2024