Once upon a medium: Exploring how narrative mediums affect the experience of narrative transportation

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Abstract

Once upon a medium: Exploring how narrative mediums affect the experience of narrative transportation

Alp Tug Atik

Brand storytelling is considered an important contributor to brand success. Stories are known to narratively transport the audience, which results in positive brand outcomes. Past research on narrative transportation mainly focused on presenting stories in a written form. However, aside from text, brands can communicate to consumers via different mediums (e.g., video). The impact of different mediums on the experience of narrative transportation has received little attention in the literature. This research aims to explore whether the amount of narrative transportation could vary across different mediums of storytelling, specifically text vs. video. Additionally, this research aims to understand the underlying mechanism for why narrative transportation may differ across mediums. Specifically, I theorize that a story presented via text may require a different amount of cognitive resources to process compared to a story presented via video form, which may affect the amount of narrative transportation experienced. This thesis examines these questions across three studies. Study 1 found that presenting a story in text form led to significantly higher narrative transportation compared to presenting the story in video form. Study 2 results were consistent with study 1 and additionally demonstrated that text required more cognitive resources to process compared to video. However, the cognitive resource requirement did not ultimately mediate the effect of medium on narrative transportation. Study 3 aimed to test the mechanism by manipulating cognitive load. While the effect of medium was replicated, cognitive load did not moderate this main effect. Finally, theoretical and managerial contributions are discussed.

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Introduction

Storytelling has had a significant effect on the development of human society over decades, in capturing attention, evoking emotion and "transporting" listeners in a way that allows them to accept a message such as culture and cultural norms (Krause & Rucker, 2020). A story is an essential part of human thought patterns which allows the transfer of knowledge through a unique form of communication. Highly complex concepts are simplified into understandable and memorable forms through the use of stories, which help in understanding and recall of these concepts (McGregor & Holmes, 1999). Slight alterations to an existing story can also affect the way in which this information is portrayed, and down the line can cause a change in listeners' attitudes and the way they perceive this information (Higgins & Rholes, 1978). Psychological research has repeatedly shown that storytelling can improve learning and knowledge retention rate by engaging processes such as attention, memory and emotion (Mossberg & Johansen, 2006). Unity in society and interactions between individuals both largely benefit from narratives. Narratives are a universal method of exchanging experiences and passing along values, forming group identities and communities (Georges, 1990). Narratives can also have a significant impact on attitudes, beliefs and actions. Past studies conducted in the fields of psychology and fine arts emphasize how important narratives are in forming cultural identities, creating empathy and advancing social changes (Slater & Rouner, 2002).

Theoretical Background

Storytelling in Marketing

Narratives have been and continue to be used in marketing and persuasion to engage audiences, elicit feelings and change consumer views on products and services. People are able to connect with each other and with brands through storytelling (Schembri vet al, 2010). Marketing psychology research has found that by appealing to consumers' emotions and goals, storytelling improves brand recall, may build brand loyalty and affect long term purchase decisions (Keller, 1993). Encountering situations such as narrative advertisements e.g. slice of life ads, drama ads can encourage consumers to be persuaded about a brand through narrative transportation (Escalas, 2004).

When it comes to brands, companies try to position their brands in a way that tells a story so as to connect with consumers on an emotional level. A "brand biography" or in other words a "brand story" can help a brand create an identity to distinguish itself from competitors (Aaker, 1997). This identity is constantly reinforced with storytelling, which can seem highly relatable to consumers (Aguirre et al, 2012). Essentially an individual's own life story is reflected within the brands values, so this individual tends to form a deeper emotional connection with the brand (Cătălin, 2014). In summary, using a particular brand's product ends up being the physical manifestation of what values a person holds and is its representation to being distinguished within the outside world. This storytelling is crucial to successful branding, given that the brand efforts are the result of all "business actions and communication" that shape the way clients perceive the companies' services or goods (Herskovitz S. & Crystal M., 2010).

Narrative Transportation

Why does storytelling enhance the persuasiveness of a message? According to Green and Brock (2000) *narrative transportation* occurs when people are exposed to stories, a phenomenon in which individuals become "lost" and immersed in a story (Green & Brock, 2000). The experience of narrative transportation is similar to a real-life traveler that is transported from his or her world performing certain actions and returning to the world of origin, somewhat "changed" by the journey (Gerrig, 1993). Narrative transportation can increase the persuasiveness of content (Escalas, 2004; Green & Brock, 2000). Narrative transportation is often contrasted with analytical processing theories such as dual-processing (e.g., Elaboration Likelihood Model; Petty & Cacioppo, 1986; Petty, Cacioppo & Schumann, 1983). While analytical thought lead to changes of attitude via logical consideration and evaluation of arguments, narrative transportation leads to persuasion through reduced negative cognitive responses, realism of experience and strong felt emotions (Escalas, 2004; Green & Brock, 2000).

According to previous research, when people are presented with stories, they can have two main cognitive responses to these stories: critical thoughts or narrative thoughts. Critical thoughts are likely to arise when individuals are presented with claims that deviate from their personal values, and these critical thoughts decrease the amount of narrative transportation experienced (Moyer-Guse & Nabi, 2010). By contrast, narrative thoughts which contain specific narrative cues like people or objects in a story can create the structure of the narrative. In which viewers can relate to. This can increase the amount of narrative transportation experienced (Escalas, 2004).

Narrative transportation can decrease critical thinking (Green & Brock, 2000). In support of this argument, Slater and Rouner (2002) find that even in cases where the storyline contradicts

an individual's pre-existing views, story recipients frequently fail to engage in critical thinking. Much of past research has suggested that storytelling enhances persuasion because the experience of being transported makes people more likely to accept the message embedded in the story without thinking too hard about it (Slater & Rouner, 2002; Krause & Rucker, 2020; Gerrig, 1993). In some situations, consumers may process a story analytically when they perceive a need to do so. Tezer et al. (2022) found that consumers tend to engage in analytical processing, rather than experience narrative transportation, when they perceive a high level of risk.

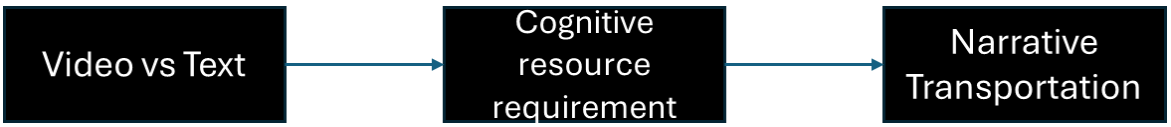
How Mode of Story Delivery May Affect Narrative Transportation

Narrative transportation has primarily been researched in contexts where the story is presented in written form. Past papers have constantly researched a single medium of; text related content delivery regarding narrative transportation, but little is known about the effects of narrative transportation when comparing different forms of narrative mediums. A lot of past papers including Green & Brock, 2000; Gerrig, 1993 and Van Laer et al, 2014, tend to focus on one medium of narrative delivery which is text. They discuss how story structure, character development and plots play an important role in facilitating the impact of narrative transportation (Green & Brock, 2000). With the increasing use of social media today, it is more crucial than ever to understand mechanisms behind social media storytelling as well as video and how they differ from traditional written mediums. While the structures in which stories are told (beginning, medium and end) are the same, the ways in which attitudes, emotions and values are conveyed may differ (De Fina, 2016). All prior research has constantly based their experiments on the text medium and manipulation of "strong vs weak arguments" to see whether it causes a change in experienced narrative transportation (Escalas, 2004; Krakow et al, 2018). Krause & Rucker, 2020, study discusses the effects of narrative vs non-narrative messaging in a short-ad

video context, and how persuasive the ads can be in video form. However, no research has really compared the medium of narrative delivery (video vs text) and the effects that it may have on how transported people, due to the changes in perception and emotions of participants. Previous studies have often examined how story structure, character development and plots play an important role in facilitating narrative transportation in written stories (Green & Brock, 2000). Thus, prior research cannot shed light on whether different mediums of presenting a story (e.g., in text form vs. in video form) can have different effects on the amount of narrative transportation experienced. The increasing use of social media marketing today leads us to believe that it is more crucial than ever to understand how different mediums of story delivery impact consumers' narrative transportation.

I hypothesize that different mediums (e.g., video vs. text) require different amounts of cognitive resources to process, and this may in turn change how much transportation consumers experience. In particular, I believe there are competing hypotheses and different reasons for whether video or text may lead to greater narrative transportation. Figure 1 presents my conceptual model, and the reasoning is explained in greater detail below.

Figure 1. Conceptual Model



Link 1: How the medium may affect cognitive resource requirements

Video vs. text may lead to differences in narrative transportation because these mediums may have different cognitive resource requirements.

Possibility 1: Videos have a lower cognitive resource requirement than text. Based on some prior research, videos may require fewer cognitive resources to process than text. According to Green & Brock (2000) a good understanding of character, story and plot needs to be established in order to be narratively transported. Since narratives are deemed to be a form of communication (Georges, 1990) when a visual channel is coupled with an auditory one it becomes possible to communicate gender, race and facial emotions in addition to visual cues (Fiske & Neuberg, 1990). Video forms of narratives are believed to be more effective than a written narrative thanks to its ability to promote visual learning (Schwartz, 2012). Daft and Lengel (1984) claimed that the variety of social cues accessible influences the richness of information conveyed by the media (video). They added that abundant media are more efficient in clearing up confusion and promoting understanding, by decreasing the cognitive load processing requirement on the message recipient. This is done by making the message conveyed much easier to interpret (Daft & Lengel, 1984).

Possibility 2: Videos have a higher cognitive resource requirement than text. However, other research suggests videos may require more cognitive resources to process than text. Theory suggests that interactive narratives like videos tend to require more cognitive effort than traditional mediums (Green & Jenkins, 2020). Working memory has two channels for information acquisition and processing: an auditory/verbal processing channel and visual/pictoral channel (Mayer & Moreno, 2003). Utilizing both pathways can cause a high cognitive load and overwhelm one channel as each has a limited working memory capacity (Brame, 2016). *"Visual*

stimuli, auditory stimuli and physical stimuli all place demands on the cognitive system" (Hart & Staveland, 1988; Hinds P.J., 1999, p.286). Based on this theorizing, it is possible that videos can be more resource-demanding than text.

Link 2: How the cognitive resource requirement may affect narrative transportation

There are also competing possibilities for how cognitive resource requirements may impact narrative transportation. How does the cognitive resource requirement of storytelling medium (e.g. video vs text) affect narrative transportation?

Possibility 1: When a storytelling medium has a higher cognitive resource requirement, this will decrease narrative transportation because exerting more effort will take people out of the state of being transported. According to Green & Brock (2000) narrative transportation happens at a low cognitive level and decreases the amount of counter arguing that occurs, due to the "immersion" that the individual experiences. Walter et al. (2017) suggest that video versions of narratives tend to invoke increased cognitive and emotional involvement than a text version, but also tend to lead to higher counter-arguing. These findings suggest that exerting more cognitive effort to process a story leads to a greater likelihood of critical thoughts, which decreases narrative transportation.

Possibility 2: When a storytelling medium has higher cognitive resource requirement, this will increase narrative transportation because there is less room for critical thoughts. The increased cognitive resource requirement of a medium may allow the reader to become more narratively transported, as more resources are used to "imagine" a scenario and fewer resources are available to counter argue the message (Bone & Ellen, 1992). Phillips, Olson and Baumgartner (1995) suggest that self-constructed mental models of potential consumption

scenarios—which entail highly detailed, self-enacted product related behaviors—can influence consumer behavior. This imagination of consumption can be thought of as appropriate for an advertising context, since marketers expect consumers to visualize themselves using their goods, creating hypothetical mental simulation of stories. This mental simulation allows for an increase in narrative transportation (Phillips, Olson & Baumgartner, 1995). Finally, according to Vorderer et al, (2001), individuals with a higher cognitive capacity rate interactive media as more entertaining. This may be due to the amount of narrative transportation they experience.

Additional to the previous dependent variables, content evaluation was measured as it is used to explore the potential consequences of narrative transportation. As it may affect the amount of narrative transportation that people may experience.

Overview of the Studies

Three studies were conducted to test the current theorizing. Study 1 provided an initial test of whether presenting a story in text vs. video format would cause differences in narrative transportation. Studies 2 and 3 aimed to confirm findings in study 1 and examine the mechanism of cognitive resource requirements. Study 2 attempted to measure the cognitive effort requirements of processing video vs text to see whether it would mediate the effect of storytelling medium on narrative transportation. Study 3 attempted to manipulate cognitive load to see whether it would moderate the effect of storytelling medium on narrative transportation. In the analyses, participants were excluded for the following pre-determined reasons: failing the attention check, suspicious responses (e.g., clicking the same value for all scale items, such as "7,7,7,7"), and self reporting poor English proficiency.

Study 1

The main goal of study 1 was to provide an initial test of whether the mode of story delivery (via video or text) would affect the extent to which participants were transported by the story. This study also sought to examine, via a thought-listing measure, whether the mode of delivery would affect the amount of processing.

Methods

A total of 73 Concordia university participants (M_{age} = 20.75; SD = 2.32; 55.8% male) were recruited through the Marketing Research Practicum (MRP) and were compensated with course credit for a 5-10 min online study. The target sample size of at least 100 (at least 50 per condition) was not reached as not enough people signed up for the study. In order to participate, participants were first required to provide informed consent using the online consent form provided on the first page of the survey.

Participants were randomly assigned into the video or the text condition in a between-participants design. Participants were then required to either watch a short video (1:01 minutes long) or read a written narrative depicting the same events as those in the video. The video was a Coca-Cola ad about an encounter between a customer and salesclerk at a convenience store (the video can be viewed here: https://www.youtube.com/watch?v=XLCm5LjkTJg). In the text condition, a matching story was created in written form (provided in Appendix B, Text condition). The written story was created using AI assistance to describe the scenes and characters within the video and was later on edited to sound as "human" as possible.

Participants then responded to a narrative transportation scale that measured the extent to which they were transported by the content (video or text) that they just consumed. The narrative

transportation scale was adapted from Green & Brock (2000), with the items adjusted to fit the current context. Scale items are provided in Appendix B.

Next, participants completed a thought-listing measure (e.g., Petty & Cacioppo, 1977). They were asked to list all the thoughts that came to mind while watching the video or reading the text. On the next page, the thoughts they had listed were presented to them and they were asked to indicate whether each listed thought was a *"Positive thought related to video/text," "Negative thought related to video/text," "Neutral thought related to video/text"* or *"Unrelated thought"* to the content they consumed. The participants were then subject to an attention check in the form of a factual question about the content (*"Did the cashier in the video offer the man a free bottle of Coca Cola?" Yes/No*). Participants who answered incorrectly were excluded from the analysis.

To examine a consequence of narrative transportation, participants reported their evaluation of the content using three items *("How would you evaluate the narrative if it were an idea for a Coca-Cola ad?" 1 = Not effective at all, 7 = Very effective; 1= Not engaging at all, 7 = Very engaging; 1 = Do not like at all, 7 = Like a lot)*. Because a real advertisement was used, participants were asked whether they had been exposed to this content before (*"Have you seen this Coca-Cola ad before?" Yes/No*) and asked to share any additional comments they had about the experiment. Next, they were asked if they faced any technical issues while consuming the content *("Did you experience any technical difficulties in today's session" Yes/No)*. If they faced technical issues they were immediately excluded from the analysis. Lastly, participants completed standard demographic questions.

Results and Discussion

Three participants were excluded from the analyses (all were excluded for failing the attention check),). leaving a total of 70 participants to be analysed. In this sample, 0.01% of participants believed they had been exposed to the content before and this did not differ significantly across conditions, thus overall, this sample was unfamiliar with the content.

Narrative transportation. To test whether mode of delivery affected participants' experience of narrative transportation, a one-way ANOVA was conducted with narrative transportation as the dependent variable and condition (text vs. video) as the factor. The items in the narrative transportation scale were averaged into a single score (*Cronbach's α* = 0.70). Higher scores represent greater narrative transportation. The one-way ANOVA revealed a significant effect of condition. Participants in the text condition reported being significantly more transported *(M* = 4.11*, SD* = 0.58) than those in the video condition *(M* = 3.63*, SD* = 0.98*), F* (1, 68) = 6.11*, p* = .016*).*

Thought listing. Using the thought listing exercise, I calculated the number of total thoughts, total positive thoughts and total negative thoughts per participant. A one-way ANOVA was conducted for each of the three thought measures. The effect of delivery mode on the number of total thoughts was not significant (*F (*1,66*)* = 0.002*, p*= 0.965), and the same was true for the number of total positive thoughts (*F (*1,66*)* = 0.022*, p*= .882). However, delivery mode had a marginally significant effect on the number of total negative thoughts where the text condition (*M* = .82, *SD* = 1.46) reported having fewer negative thoughts when compared to the video condition (*M* = 1.50, *SD* = 1.83), (*F* (1,66) = 2.830, *p* =.097*).*

Content evaluation. The three items assessing participants' evaluation of the content were averaged *(Cronbach's α* = .891) and analyzed using a one-way ANOVA. A marginally significant effect of condition emerged, such that participants in the text condition reported more

positive attitudes towards the content *(M*=5.93*, SD*=1.17*)* than those in the video condition *(M* = 5.25*, SD* = 1.80*), F(*1, 68*)* = 3.46*, p* < 0.067*)*.

Discussion

The first study demonstrated a difference in the amount of narrative transportation experienced across different mediums. The thought-listing task provided some initial indication as to the potential mechanism, finding a marginally higher number of negative thoughts in the video condition than in the text condition. This finding is consistent with participants' content evaluation, which was more positive in the text condition than in the video condition.

Study 2

Study 2 had two goals: i) to replicate the results in study 1, and ii) to test the proposed theoretical mechanism by examining whether cognitive effort would mediate the difference in narrative transportation experienced in the video vs text condition.

Methods

A total of 200 U.S. participants (M_{age} = 37.32; *SD* = 11.70; 61.66% *Male*) were recruited for an online experiment. These participants were recruited from the Cloud Research Connect platform and were compensated US$1.00 for an approximately 8-minute study.

Participants were first required to provide an informed consent form. Participants were then randomly assigned to either a video or text condition. The same stimuli as study 1 were used. Participants were required to stay on the respective timed pages, as they could not proceed to the questions until the timer of 1 minute was up. This was done to ensure that participants thoroughly understood the context and did not just skip, or skim read the video/text.

After the content was presented, participants completed four cognitive effort questions that were adapted from Cooper E. (1994), measured on a scale of *(1= Not a lot, 7= a lot, "How*

much did you need to focus to watch the video?, "How much effort did it take to watch the video?", "How much attention did it take to watch the video?", "How much did you need to concentrate to watch the video?").

Participants were then presented with the same narrative transportation questions as in study 1 (provided in Appendix C) adapted from Green & Brock (2000)**.** Next, they were asked to list the thoughts they had while consuming their respective content, with one thought per line, up to a total of 9 thoughts. Again, participants were required to "code" their previous thoughts into "Positive," "Negative," "Neutral" or "Unrelated" thoughts in response to the content they consumed. They were later subject to the same attention check as study 1.

Participants' content evaluation was assessed using the same items as in Study 1; engagement, effectiveness and likeness (1 = *Not effective at all*, 7 = *Very effective*; 1= *Not engaging at all* , 7= *Very engaging*; 1=*Do not like at all*, 7=*Like a lot*).

Then they were asked whether they had seen the particular ad before (*"Have you seen this Coca-Cola ad before?" Yes/No)* and to share additional comments. Next, they were asked if they faced any technical issues while consuming the content *("Did you experience any technical difficulties in today's session" Yes/No)*. If they faced technical issues they were immediately excluded from the analysis. These were followed by the standard demographic questions.

Results and Discussion

Seven participants were excluded from the analyses (all were excluded for failing the attention check). This left 193 participants for the analysis.

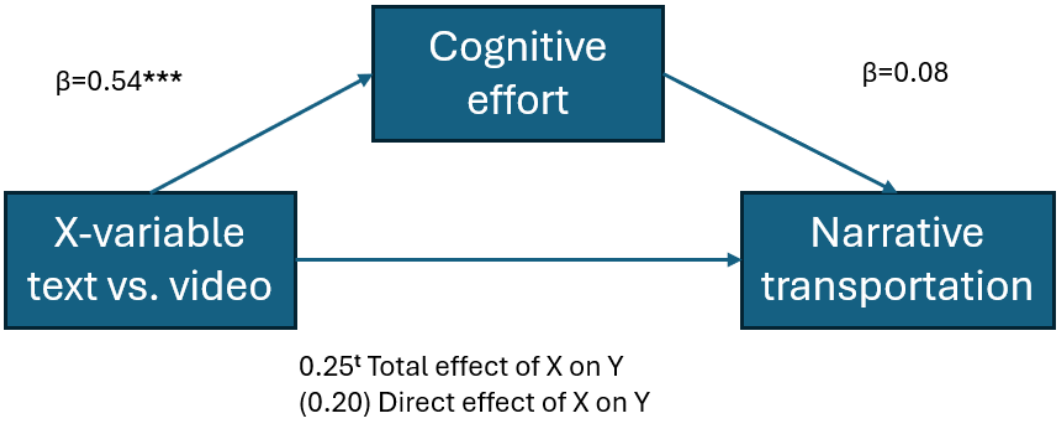
In this sample, less than 0.02% of participants believed that they had been exposed to the content before and this didn't differ across conditions, overall, the sample reported to being unfamiliar with the content.

Cognitive effort. The items in the cognitive effort scale were averaged into a single score (*Cronbach's α* = 0.83). To test whether cognitive effort differed across conditions (video vs text), a one-way ANOVA was conducted with cognitive effort as the dependent variable and condition as the factor. Higher scores represent greater cognitive effort in processing the content. The one-way ANOVA revealed a significant effect of condition. Participants in the text condition reported exerting higher cognitive effort *(M* = 4.27*, SD* = 0.97*)* while consuming the content than those in the video condition *(M* = 3.73*, SD* = 0.99*), F(*1,191*)* = 14.49*, p* < .001*).*

Narrative transportation. To test if mode of delivery (condition) affected participants' experience of narrative transportation, a one-way ANOVA was conducted with narrative transportation as the dependent variable and condition as the factor. Again, the narrative transportation scores were averaged into a single score *(Cronbach's α* = 0.77*).* Higher scores represent greater narrative transportation experienced. The one-way ANOVA revealed a marginally significant effect of condition. Participants in the text condition reported being slightly more transported *(M* = 4.76*, SD* = 0.93*)* than those in the video condition *(M* = 4.51*, SD*= 1.02*), F (*1,191*)* = 3.08*, p* = .081*).*

Mediation of narrative transportation by cognitive effort. In order to assess whether cognitive effort mediates narrative transportation, I conducted a mediation test using PROCESS model 4 (5000 bootstrapped samples; Hayes 2017). Condition was used as the independent variable, narrative transportation as the dependent variable and cognitive effort as the mediator. Figure 2 below shows the mediation model.

Figure 2. Mediation Model



Legend : *** *p* <.001, ** = p< .01, * = p< .05, t = p <.10

The results indicated in the mediation analysis show that there is a significant effect of X-variable (condition) on cognitive effort (β = .54, *SE* = .14, *t* = 3.81, *p* = <.001). However, the effect of cognitive effort on narrative transportation (β = .08, *SE* = .07, *t* = 1.15, *p* = .25) was not significant. Additionally the indirect effect of X on Y was not significant (β = .04, 95% CI[-.04, .14]), thus cognitive effort did not mediate the effect of medium on narrative transportation.

Thought Listing. Similar to study 1, I calculated the number of "Total thoughts, total positive thoughts and total negative thoughts" that each participant had when consuming their respective content. A one-way ANOVA was conducted for all three variables separately, using each as the dependent variable and condition as the factor. The one-way ANOVA revealed no significance in the main effect of condition across all three variables; *"Total thought" F(*1,191*)* = 1.48, *p* =.225), *"Total positive thought" F(*1,191*)* = 0.583, *p* = .446), *"Total negative thought" F(*1,191*)* = 0.648, *p* = .422*)*.

Content evaluation. The three items assessing participants' evaluation of the content were averaged *(Cronbach's α = .944)* and analyzed using a one-way ANOVA. The effect of condition was seen to be not significant $F(1,191) = 1.06$, $p = .305$).

Discussion

This study found a marginally significant effect of medium on narrative transportation, such that a story presented in text form led to higher transportation than a story presented in video form, consistent with study 1 results. Additionally, medium had a significant effect on cognitive effort, suggesting that it takes more effort to consume text compared to video. However, cognitive effort did not mediate the effect of medium on transportation. As an alternative way to test the mechanism, cognitive load was manipulated in the following experiment.

Study 3

The main goal of study 3 was to replicate the previous two experiments and to further examine the role of cognitive effort in narrative transportation. While study 2 measured cognitive effort to assess its role as a mediator, study 3 attempted to manipulate cognitive resources to examine whether it would moderate the effect of medium on narrative transportation. Cognitive resources were varied via a cognitive load manipulation. It was predicted that high load would attenuate the effect of medium on narrative transportation.

Methods

A total of 321 U.S. participants completed this online experiment. These participants were recruited from Cloud Research and were compensated US$1.00 for a 10-minute study. 321 participants (M_{age} = 37.77; SD = 12.39; 55.3% Male) were included in the data. In order to

participate, participants were first required to provide the informed consent form on the first page of the online survey.

In this experiment, participants were randomly assigned to a 2 (video vs. text) x 2 (high cognitive load vs. low cognitive load) between-participants' design. Before consuming the content, participants were either assigned into the high cognitive load or no cognitive load situations. If the participant was assigned to low cognitive load, they would proceed the same way as participants did in experiment 1.

If they were assigned to the high cognitive load condition, they were given the following instructions on the screen prior to being presented with the video or text: *"Please try to memorize the following 7-number sequence. We would like you to keep rehearsing this sequence in your head on the next screen. Afterwards, we will ask you to type out the sequence, as best you can, from memory. Your compensation will <u>not</u> be affected by your answer, so no need to write the sequence down - we just want you to keep it in your mind. Please rehearse the following sequence: 1235784"* (adapted from Deck C. et al., 2021).

Next, all participants were required to watch the same short video or read the same narrative as in the previous experiments. After consuming the content, in high cognitive load the participants were asked to recall and enter the sequence to the best of their abilities *"Please enter the 7-number sequence that we showed you earlier, as best as you can remember."*

Participants then responded to the same narrative transportation scale as in the previous two experiments. Next, participants completed the same thought listing measure and the same attention check as in the previous two experiments. Participants who answered the attention check incorrectly were excluded from the analysis.

Participants' evaluation of the content was assessed using the same three items as before. Since a real advertisement was used, participants were asked if they had been exposed to this content before (*"Have you seen this Coca-Cola ad before?" Yes/No)*. Next, they were asked if they faced any technical issues while consuming the content *("Did you experience any technical difficulties in today's session" Yes/No)*. If they did, then they were excluded from the analysis. Finally, they were asked generic demographic questions.

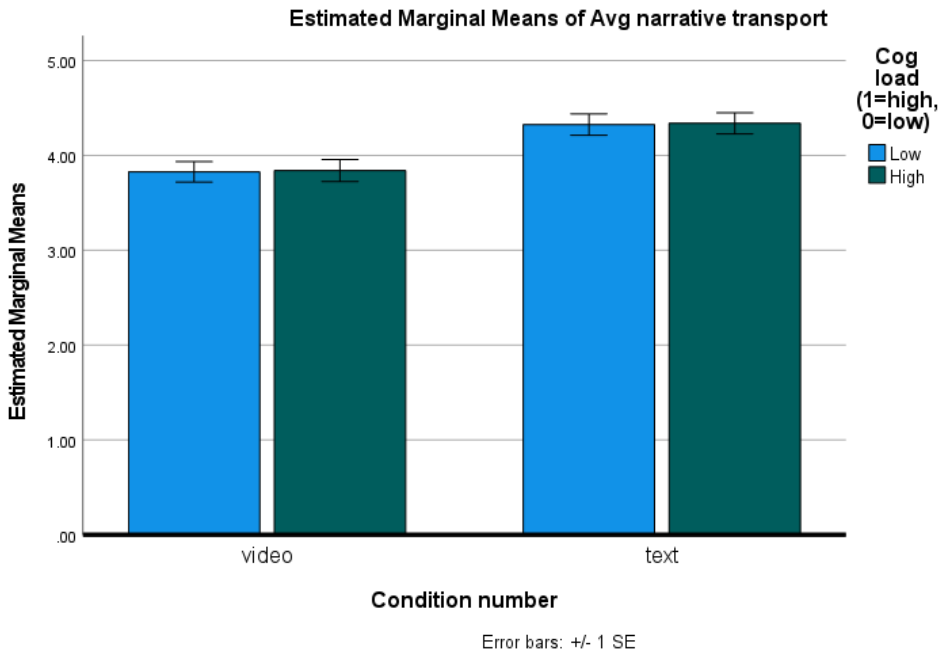
Results and Discussion

A total of 12 participants were excluded from the analyses (all were excluded for failing the attention check),. A total of 309 participants were retained for the analysis.

In this sample a total of 0.6% of participants believed that they had been exposed to the content before, meaning that overall, the sample was again unfamiliar with the content.

Narrative transportation. A two-way ANOVA was conducted, with condition (text vs. video) and cognitive load (high vs. low) as the factors and narrative transportation as the dependent variable. The items in the narrative transportation scale were averaged to find the overall transportation score *(Cronbach's alpha* = 0.78*).* The two-way ANOVA revealed a significant effect of medium. Participants in the text condition reported being significantly more transported *(M* = 4.33*, SD* = .97*)* than those in the video condition *(M* = 3.83*, SD* = .99*), F(*1, 305*)* = 19.81*, p* < .001*)*, replicating the results of study 1 and study 2. The main effect of cognitive load in high (*M* = 4.09, *SD* = .08) vs low (*M* = 4.08, *SD* = .08), F(1,305) = *.02, p* = .904*)* was not significant. The interaction between cognitive load and condition was also not significant F(1,305) = *.00, p* = .999*).* The summary of these findings can be found in Figure 3 below:

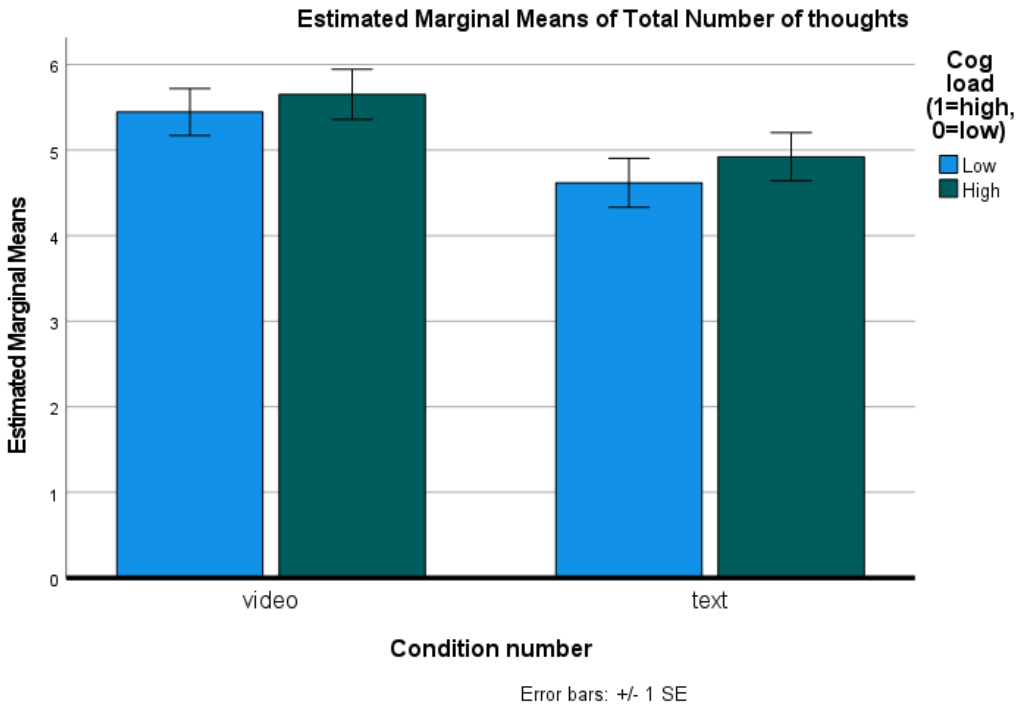
Figure 3.



Thought listing. Through the thought listing exercise, I was able to calculate the total number of thoughts, total positive thoughts, total negative thoughts, total related thoughts and total unrelated thoughts per participant. A two-way ANOVA was conducted for each of the five variables. Related and unrelated thoughts were analyzed in this study to provide more insight about the effect of the cognitive load manipulation.

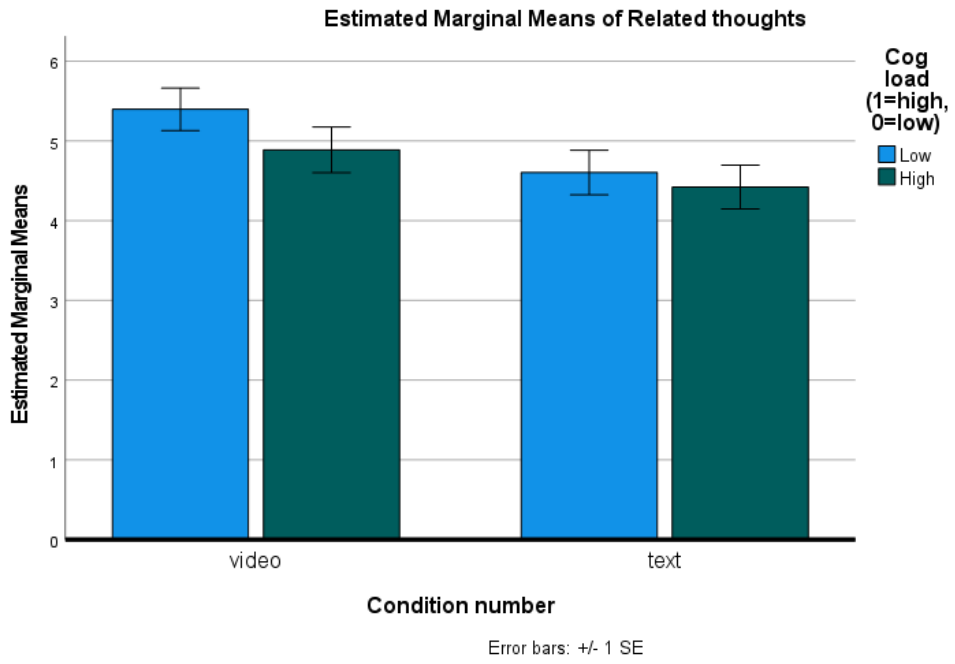
Total thoughts. The two-way ANOVA for total thought yielded a significant main effect of condition where participants in the video condition reporting having more overall thoughts while consuming the content *(M* = 5.54*, SD* = 2.37*)* compared to the text condition *(M* = 4.77*, SD* = 2.60*), F (*1,305*)* = 7.52*, p* = .006. The main effect of cognitive load *F (*1,305*)* = .81, *p* = .37*)* and its interaction with condition were not significant *F (*1,305*)* = .03 *(p* = .86*).* See Figure 4.

Figure 4.



Total Related thoughts – The two-way ANOVA conducted for related thoughts yielded a significant main effect of condition. Where participants in the video condition reported having more related thoughts to the content they consumed *(M* = 5.16*, SD* = 2.28*)* compared to the text condition *(M* = 4.51*, SD* = 2.57*), F (*1,305*)* = 5.18, *p* = .024. The main effect of cognitive load *F (*1,305*)* = 1.56, *p* = .21*)* and its interaction with condition *F (*1,305*)* = *.35*, *(p* = .56*)* were not significant. Seen in figure 5 below.

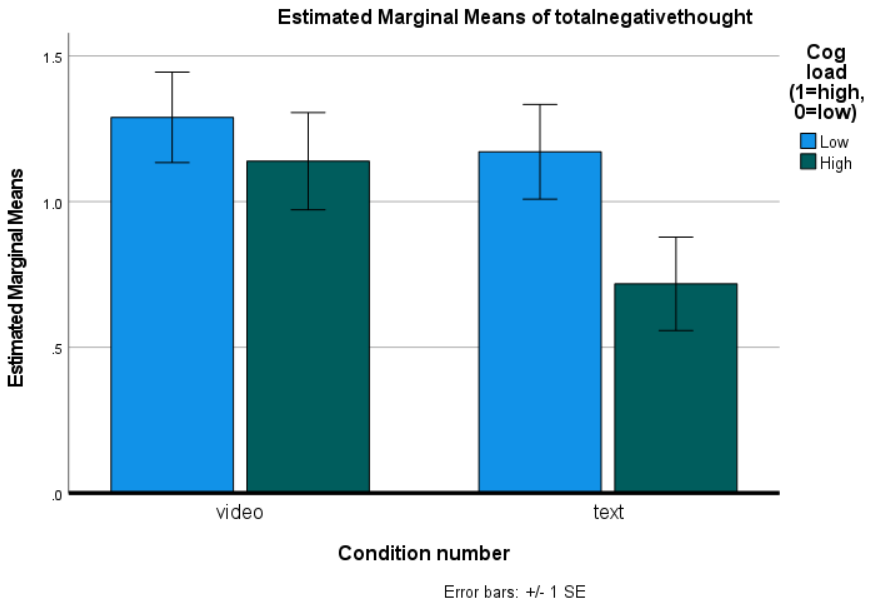
Figure 5.



Total positive thoughts – The two-way ANOVA on total positive thoughts yielded no significant main effect of condition $F(1,305) = 2.30$, $p = .13$) neither did it yield a main effect for cognitive load $F(1,305) = .02$, $p = .89$) nor was there a significant effect for their interaction $F(1,305) = 1.46$, $p = .23$).

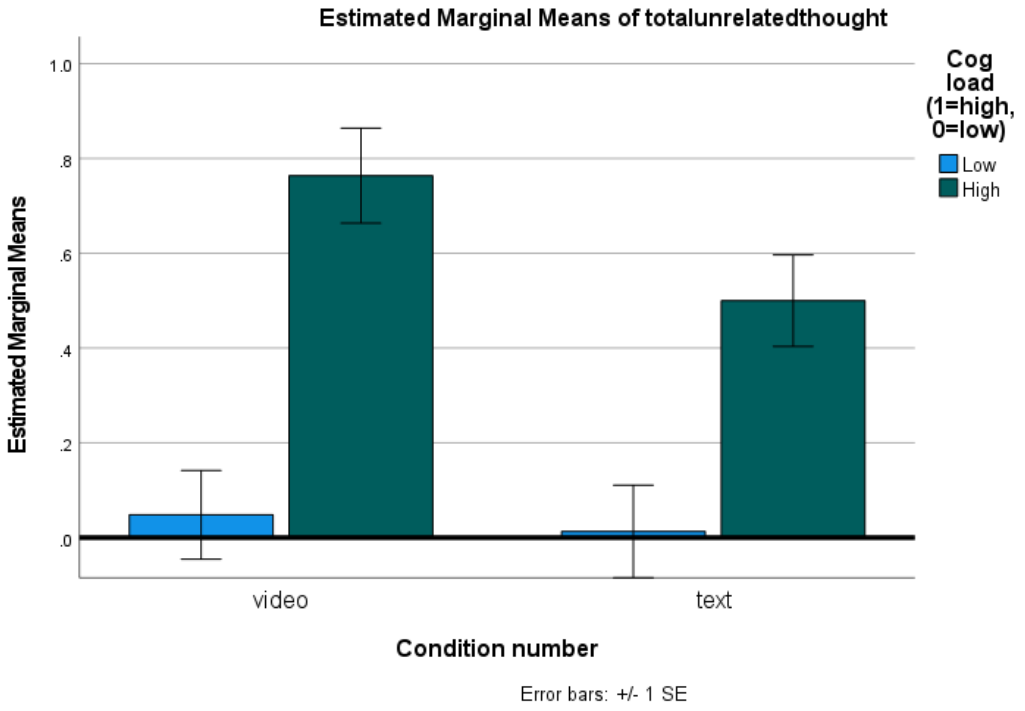
Total negative thoughts – The two-way ANOVA for total negative thoughts yielded a marginally significant effect of condition where participants in the video condition reporting having more negative thoughts ($M = 1.22$, $SD = 1.63$) compared to the text condition ($M = .94$, 1.20), $F(1,305) = 2.80$, $p = .09$. The main effect of cognitive load was also seen to be marginally significant where participants in the "*high cognitive load*" scenario reported having fewer negative thoughts ($M = .92$, $SD = 1.40$) compared to the "low cognitive load" scenario ($M = 1.23$, $SD = 1.43$), $F(1,305) = 3.51$, $p = .062$. The interaction term of the main effects was not significant $F(1,305) = .35$, $p = .35$). Results can be seen in Figure 6 below.

Figure 6.



Total unrelated thoughts – The two-way ANOVA on total unrelated thoughts showed no significant main effect of condition *F (*1,305*)* = 2.37, *p* = .13*)*. However cognitive load was significant, where participants in the "*high cognitive load*" scenario reported more unrelated thoughts while consuming the content *(M* = .63*, SD* = 1.21*)* compared to participants in the "*low cognitive load*" scenario *(M* = .03*, SD* = .18*), F (*1,305*)* = 38.40*, p* < .001). Again, the interaction terms were not significant *F (*1,305*) = 1.39*, *p* = .24). Results can be seen in figure 7 below.

Figure 7.



Content evaluation. The three items assessing participants' evaluation of the content were averaged again and named "attitude_index" (*Cronbach's α* = .923) and analyzed using a two-way ANOVA. The main effects of condition F (1,305) = .98, p = .32) and cognitive load F (1,305) = .90, p = .34) was not significant, nor was the interaction between them significant F (1,305) = .51, p = .47).

Discussion

Study 3 again revealed the same pattern as the previous 2 studies—a significant main effect of medium on narrative transportation emerged. However, the main effect of the cognitive load manipulation and its interaction with condition were nonsignificant. The thought related analysis revealed that participants in the video condition overall have more "total thoughts," more "related thoughts," and marginally more "negative thoughts" than participants in the text

condition. This latter result is consistent with the finding in study 1, suggesting that participants in the video condition may be able to allocate more cognitive resources to counter argue or generate critical thoughts regarding the story. It also appeared that high cognitive load suppressed negative thoughts more in the text condition than in the video condition. This is consistent with the possibility that text requires more resources to process, thus reducing these resources also reduces critical thoughts.

General Discussion

My thesis aimed to better understand the role of different types of narrative mediums (e.g. video vs. text) in affecting the amount of narrative transportation a consumer experiences. Study 1 provided initial evidence that narrative medium can affect the amount of narrative transportation experienced, specifically reading a story in text form increased narrative transportation compared to watching the story play out in a video. Study 2 aimed to replicate the results of study 1. Additionally, study 2 attempted to provide an initial test of the theoretical model (figure 1) by measuring the cognitive effort required to process content in text vs. video form. The effect demonstrated in study 1 was replicated with marginally significant results, and participants also indicated that the text condition was more effortful to process than the video condition. However, cognitive effort did not mediate the effect of medium on narrative transportation; the measure of cognitive effort did not exhibit a significant relationship with narrative transportation.

Study 3 attempted to examine the theorizing by manipulating cognitive load as a moderator. No interactive effect of cognitive load was observed. However, analysis of participants' thought listings indicated that there was a main effect of medium, where participants in the video condition reported having increased total thoughts, thoughts related to

the content, and marginally more negative thoughts. Additionally, there was a main effect of cognitive load on negative thoughts and unrelated thoughts. Participants under high cognitive load indicated having fewer negative thoughts when compared to the low cognitive load scenario. Moreover, participants in high cognitive load reported having more unrelated thoughts compared to low cognitive load participants.

Theoretical Contributions and Practical Implications

Most prior research on narrative transportation has focused on stories in written form (Green & Brock, 2000). My thesis contributes and extends the research of narrative transportation into different types of narrative mediums, finding varied responses across mediums. My research contributes theoretically to the literature on narrative transportation, by demonstrating that cognitive effort may indeed differ across narrative mediums. While my tests of the cognitive effort mechanism did not yield conclusive results, further research is required to rule out the importance of cognitive resource requirement. My study 2 findings provide a hint that, contrary to prior research suggesting that narrative transportation is a low-effort phenomenon (Green & Brock, 2000), narrative transportation might occur in parallel with high cognitive effort.

My thesis also offers practical implications for storytelling in a marketing context. Marketers may want to pay attention to the narrative mediums used for ads, as different mediums can result in different degrees of narrative transportation. However, if it is true that exerting more cognitive effort to process the story would lead to greater transportation, increasing transportation may be a challenge in a consumer context, where consumers are confronted with a lot of content and may not be inclined to exert effort. If cognitive resources do play a role in narrative transportation, marketers may want to consider tailoring marketing communications

according to consumers' involvement levels. More involved consumers are more likely to exert the effort required to process a story in text form and may experience greater transportation as a result. While this research takes a first step in examining these important questions, additional research is needed to delve more fully into the impacts of different mediums and the role of cognitive resources in narrative transportation.

Limitations and Future Research

My research has several limitations that future research can improve upon. First, my chosen video stimulus was a real-life Coca-Cola advertisement. Even if participants were not familiar with the specific ad, the familiarity factor of the brand can play a role in their experience of narrative transportation. Prior consumption experience creates familiarity (Hoch and Deighton, 1989). Customers with minimal brand familiarity could be expected to use more cognitive resources when processing a brand's story, and due to this they will likely experience contradictory findings to their initial expectations, creating differing emotions (Tam, 2008). By contrast, customers with high familiarity will find it much easier to assess a brand's performance since they have established a strong emotional relationship and expectations prior to seeing the ad (Alba & Hutchinson, 1987). So, familiarity may play a role in the ease of the customer being narratively transported. While brand familiarity with Coca-Cola may be high, participants in my studies did report low levels of familiarity with the specific ad itself. Future research could extend my findings and use video/text story samples that are completely "unknown," so that there is a minimum of external factors such as brand familiarity that may play a role in participant perceptions and attitudes.

Another limitation is that the same story involving Coca-Cola was used across all three studies. This was done in an attempt to have each study build cleanly on the previous one,

without having potential differences in results due to changes in the stimuli. Coca-Cola is known for their highly emotional and engaging adverts. However, the text condition in the studies was an adaptation of the original Coca-Cola video ad into written form. The written story was created using AI assistance to describe the scenes and characters within the video and was later on edited to sound as "human" as possible. It's possible that the written text conveyed the story in a highly engaging manner, leading participants to experience greater narrative transportation. If the text was not written as well, then the opposite could also be possible, where the participants would not be as narratively transported. Future research can address this limitation by creating different versions of the story in written form and examining their impact on narrative transportation.

A related limitation of my studies is the fact that the video condition presented what was obviously an advertisement, while the text condition was not positioned as an ad, but rather as a story. The problem with this is that some participants may be more resistant to ads when it is clearly depicted as such (Friestad & Wright, 1994), leading them to be more resistant to the storyline in the ad and overall message. This would cause them to be less narratively transported. However, the opposite can be said for the text condition since it was depicted as a story, participants may be more willing and open to understand the context of the story, leading them to be more narratively transported.

Even though my studies suggested that narrative transportation differs across the text vs. video conditions and that processing might also differ across these conditions, the tests of the theory through mediation (study 2) and moderation (study 3) did not show conclusive results. Given the difficulties in manipulating cognitive load in an online study, future research could attempt to do this in an in-person lab study or using a different task to manipulate cognitive load. If this research finds that high cognitive load eliminates differences in narrative transportation

between the text and video conditions, this would offer support for the hypothesis that the effect is driven by the different cognitive resource requirements of different narrative mediums.

When choosing my video sample to be used and adapted into the text condition, I made sure to choose a story that evoked a positive message within the participant. However, different narrative mediums can evoke emotions differently. It might be easier to evoke certain emotions (e.g., fear, disgust, happiness, etc.) through a video medium, thanks to the use of music, images and much more detailed use of background visuals when compared to a text medium. Negative emotion inducing stories could also play a role in participant attitudes and cause different amounts of narrative transportation to be experienced. According to prior research, negative messages are more memorable and can be "more accessible in memory" (Merolla & Jones, 2017). Future research could delve into a comparison between narratives that evoke different types of emotions to examine whether message positivity/negativity plays a role in the amount of narrative transportation experienced across different mediums.

Additionally, a manipulation check for the cognitive load manipulation was not administered in study 3. To check the success of this manipulation, future studies could implement manipulation check questions such as asking about the extent to which participants were able to focus on the stimuli at hand.

Aside from cognitive load, an alternative way to examine the theorizing around cognitive resource allocation is to cognitively fatigue participants before showing the stimuli. The idea is that cognitively fatigued participants would allocate fewer resources to processing the content, which may affect transportation.

Future research could also analyse the impact of age on cognitive effort and narrative transportation. Since social media and video sites (e.g., YouTube, TikTok, Instagram, etc.) is

occupied by many young users, it may be important to understand the effects of age. . For example, it is possible that different generations have different attention spans for processing content. This may have implications for whether marketers should present text vs. video, and also for the length of the content presented.

Relatedly, future research could also analyse whether the length of a video or written narrative will impact the experience of narrative transportation. For example, lengthy content may allow for more transportation if the consumer becomes immersed. However, under some circumstances—e.g., decreasing attention spans—longer content may actually hinder transportation.

Although content evaluation was examined as an exploratory dependent variable, it did not have consistent effects across all studies. A limitation of this measure was that the wording for the scale measures was different across conditions. If it is included in future research, the wording could be revised to have more parallel insights across conditions.

In summary, my thesis contributes to understanding whether different types of narrative mediums (video vs text) will invoke different amounts of narrative transportation. In the context of my studies, I demonstrated that the text condition was more narratively transporting than the video condition, however the possibility that this effect is stimuli-specific cannot be ruled out. I further found evidence that the cognitive effort requirements across conditions were different, where the text condition required more cognitive effort to process. Participants' thought listings also differed across conditions, indicating differences in cognitive resources utilized. While my studies could not determine the impact of cognitive effort on narrative transportation, the possibility that cognitive effort matters also cannot be ruled out. Additional research is necessary

to understand what contributes to narrative transportation. In sum, my thesis provides a crucial step in furthering marketers' understanding of how different mediums may impact storytelling.

Conclusion

In conclusion, this thesis contributes to our knowledge of how narrative transportation may differ across mediums. Across three studies, I found that participants respond differently to the same story across text and video mediums. Additionally, I found that different mediums may be associated with different cognitive resource requirements, however the impact of cognitive resources on narrative transportation is still inconclusive. Further research is needed to understand these relationships more fully. The current work is a stepping stone into better understanding the experience of narrative transportation across various narrative mediums.

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Appendix A: Study 1 Consent Form

(Same consent form for all three studies)

INFORMATION AND CONSENT FORM

Study Title: Online content and information
Researcher: Alp Tug Atik
Researcher's Contact Information: a_atik@live.concordia.ca
Faculty Supervisor: Sharlene He
Faculty Supervisor's Contact Information: sharlene.he@concordia.ca
Source of funding for the study: CASA GRANT

You are being invited to participate in the research study mentioned above. This form provides information about what participating would mean. Please read it carefully before deciding if you want to participate or not. If there is anything you do not understand, or if you want more information, please ask the researcher.

A. PURPOSE

The purpose of this research is to examine how people perceive and judge different types and formats of online content.

B. PROCEDURES

If you participate, you will be asked to complete a series of short questionnaires. You will be asked to look at content (e.g., an article or a video) and provide responses such as your judgment and attitudes. You may also be asked to complete some standard psychological scales and provide basic demographic information. In total, participating in this study will take up to 20 minutes.

C. RISKS AND BENEFITS

There are no known risks associated with participating in this study.

D. CONFIDENTIALITY

We will gather the following information as part of this research: your student ID and your responses to the study's questions. The gathered information will remain strictly anonymous and will only be accessible to individuals directly involved in the research process. Gathered information will be utilized solely for the purposes outlined in this study.

Your participation in this research will be made confidential. This means that we will have your unique student ID.

We will ensure the privacy and security of the data by restricting access to the dataset exclusively to the research team members. The data will be stored on password-protected computers, Qualtrics' servers, and password-protected cloud services. Please note that data files uploaded to cloud services located on U.S. servers may be subject to the USA Patriot Act, which may impact data privacy.

We intend to publish the results of the research. However, it will not be possible to identify you in the published results. Anonymous data may be shared with editors and reviewers during the publication process, and it may also be made available to other researchers. However, it will not be possible to identify you in the data set.

F. CONDITIONS OF PARTICIPATION

You do not have to participate in this research. It is purely your decision. If you do participate, you can stop at any time by simply closing your browser. Please note that you will not be able to withdraw your participation after you submit the survey. As a compensatory indemnity for participating in this research, you will receive course credits. If you stop in the middle of the study, you will not receive this compensation.

There are no negative consequences for not participating, stopping in the middle, or asking us not to use your information.

G. PARTICIPANT'S DECLARATION

I have read and understood this form. I have had the chance to ask questions and any questions have been answered. I agree to participate in this research under the conditions described.

If you CONSENT to participate, please click to the next page to begin the survey.
If you DO NOT consent to participate, please simply exit this browser window.

If you have questions about the scientific or scholarly aspects of this research, please contact the researcher. Their contact information is on page 1.

If you have concerns about ethical issues in this research, please contact the Manager, Research Ethics, Concordia University, 514.848.2424 ex. 7481 or oor.ethics@concordia.ca.

BY CLICKING "NEXT", I FREELY CONSENT AND VOLUNTARILY AGREE TO PARTICIPATE IN THIS STUDY.

Appendix B: Stimuli and Measures – Study 1

Video Condition

Please watch this short video in full. You will be able to advance to the next page after you watch the video.

https://www.youtube.com/watch?v=XLCm5LjkTJg

Narrative transportation questions

"How do you feel about the video you just watched?" – questions below on a 7-point scale from Not at all to Very Much

- While I was viewing the video, I could easily picture the events in it taking place
- While I was viewing the video, activity going on in the room around me was on my mind
- I could picture myself in the scene of the events shown in the video
- I was mentally involved in the video while viewing it
- After the video ended, I found it easy to put it out of my mind
- I wanted to learn how the video ended
- The video affected me emotionally
- I found myself thinking of ways the video could have turned out differently
- I found my mind wandering while watching the video
- The events in the video are relevant to my everyday life
- I had a vivid mental image of the main character

Thoughts Listing

Please list all the thoughts that came to your mind while watching the video. List one thought per line, up to as many (or as few) thoughts as you had.

Thought 1
Thought 2
Thought 3
Thought 4
Thought 5
Thought 6
Thought 7
Thought 8
Thought 9

Thought Piping – Evaluation

Previous thought questions answers piped into the new question – drop down menu allowing participants to categorize thoughts as “Positive, Negative, Neutral or Unrelated”.

Below are the thoughts you listed on the previous page. Please categorize each of the thoughts you listed into one of the following categories using the drop-down menus beside each thought:

Positive thought related to the video
Negative thought related to the video
Neutral thought related to the video
Unrelated thought related to the video

${q://QID12/ChoiceTextEntryValue/1}
${q://QID12/ChoiceTextEntryValue/2}
${q://QID12/ChoiceTextEntryValue/3}
${q://QID12/ChoiceTextEntryValue/4}
${q://QID12/ChoiceTextEntryValue/5}
${q://QID12/ChoiceTextEntryValue/6}
${q://QID12/ChoiceTextEntryValue/7}
${q://QID12/ChoiceTextEntryValue/8}
${q://QID12/ChoiceTextEntryValue/9}

Attention Check

Did the cashier in the video offer the man a free bottle of Coca Cola?

- No
- Yes

Ad Evaluation

How would you evaluate the Coca-Cola ad that you watched?

Do not like at all	○	○	○	○	○	○	○	Like a lot
Not effective at all	○	○	○	○	○	○	○	Very effective
Not engaging at all	○	○	○	○	○	○	○	Very engaging

Ad Familiarity

Have you seen this Coca-Cola ad before?

- ○ No
- ○ Yes

Comments about study

If you have any comments about this study, feel free to share them:

Video technical problems

Did you experience any technical difficulties in today's study session?

- ○ No
- ○ Yes. Please describe:

Text Condition

Please read this short narrative:

On a hot, radiantly sunny day, a young man stepped into a convenience store, grey T-shirt soaked with sweat. Eager to quench his thirst, he asked the young woman at the counter, "Hi, cold drinks?" The cashier, lost in her phone, absentmindedly gestured towards the refrigerated drinks aisle without lifting her eyes.

As the man navigated through the aisles, the cashier glanced at him and her attention was immediately captured. Looking at the computer screen displaying footage from the surveillance cameras, she observed the young man selecting a refreshing bottle of Coca-Cola.

A smile spread on her face as the unfolding scene on the screen captivated her. She watched the young man chug the bottle of Coca-Cola, relishing the cold beverage.

When he approached the counter to pay, she decided to add a touch of fun to his day.

"Oh, you're in luck," she declared with an admiring grin. "It's happy hour, so you've won another Coca-Cola for free. But there's a catch—you have to enjoy it right here in the store."

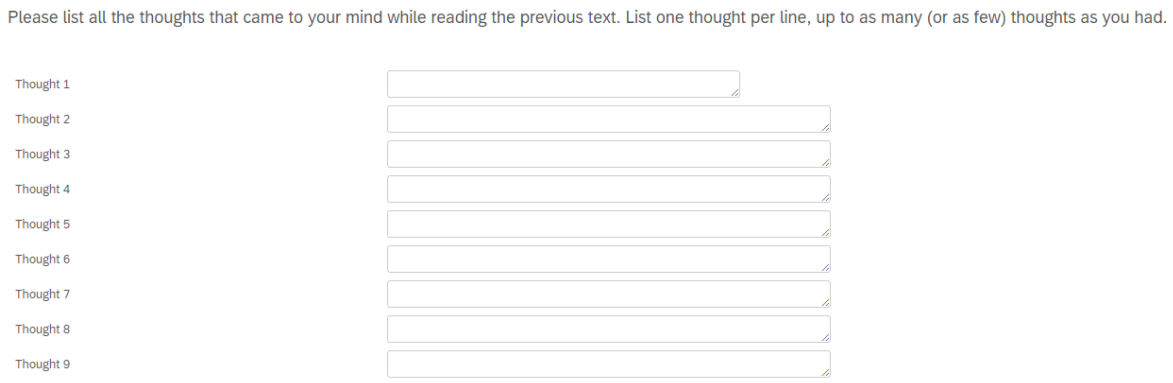
The young man, catching on to the playful atmosphere, reciprocated the smile. With a nod of agreement, he opened the second Coca-Cola, savoring the unexpected bonus on this hot summer's day.

Narrative transportation questions

"How do you feel about the narrative you just read?" – questions below on a 7-point scale from Not at all to Very Much

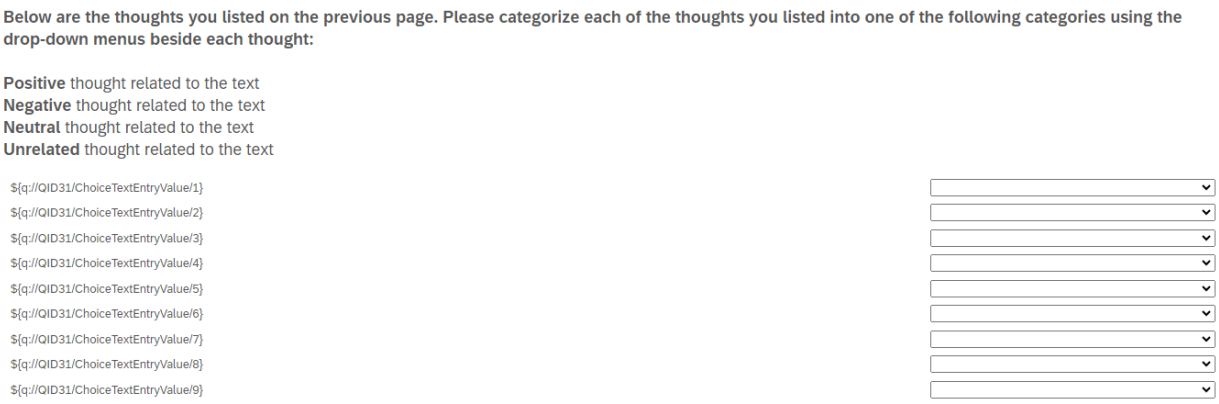
- While I was reading the narrative, I could easily picture the events in it taking place
- While I was reading the narrative, activity going on in the room around me was on my mind
- I could picture myself in the scene of the events shown in the narrative
- I was mentally involved in the narrative while viewing it
- After the narrative ended, I found it easy to put it out of my mind
- I wanted to learn how the narrative ended
- The narrative affected me emotionally
- I found myself thinking of ways the narrative could have turned out differently
- I found my mind wandering while reading the narrative
- The events in the narrative are relevant to my everyday life
- I had a vivid mental image of the main character

Thought Listing

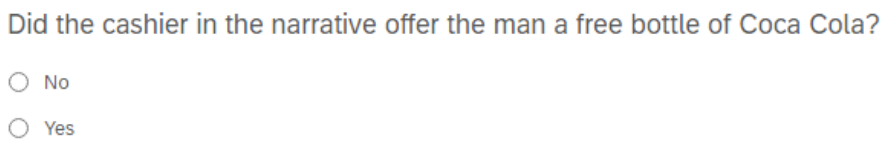


Thought Piping – Evaluation

Previous thought questions answers piped into the new question – drop down menu allowing participants to categorize thoughts as “Positive, Negative, Neutral or Unrelated”.



Attention Check



Ad Evaluation

Ad Familiarity

Have you seen a Coca-Cola ad based on this story idea before?

- ○ No
- ○ Yes

Comments about study

Feel free to share any comments you may have about this Coca-Cola ad content study:

Appendix C: Stimuli and Measures – Study 2

Video Condition

Please watch this short video in full. You will be able to advance to the next page after you watch the video.

https://www.youtube.com/watch?v=XLCm5LjkTJg

Cognitive Effort questions

Please answer the following questions about the video-watching experience. There are no right or wrong answers, so please answer candidly.

	1=Not a lot	2	3	4	5	6	7=A lot
How much did you need to focus to watch the video?	○	○	○	○	○	○	○
How much effort did it take to watch the video?	○	○	○	○	○	○	○
How much attention did it take to watch the video?	○	○	○	○	○	○	○
How much did you need to concentrate to watch the video?	○	○	○	○	○	○	○

Narrative transportation questions

"How do you feel about the video you just watched?" – questions below on a 7-point scale from Not at all to Very Much

- While I was viewing the video, I could easily picture the events in it taking place
- While I was viewing the video, activity going on in the room around me was on my mind
- I could picture myself in the scene of the events shown in the video
- I was mentally involved in the video while viewing it
- After the video ended, I found it easy to put it out of my mind
- I wanted to learn how the video ended
- The video affected me emotionally
- I found myself thinking of ways the video could have turned out differently
- I found my mind wandering while watching the video
- The events in the video are relevant to my everyday life
- I had a vivid mental image of the main character

Thoughts Listing

Please list all the thoughts that came to your mind while watching the video. List one thought per line, up to as many (or as few) thoughts as you had.

Thought 1
Thought 2
Thought 3
Thought 4
Thought 5
Thought 6
Thought 7
Thought 8
Thought 9

Thought Piping – Evaluation

Previous thought questions answers piped into the new question – drop down menu allowing participants to categorize thoughts as “Positive, Negative, Neutral or Unrelated”.

Below are the thoughts you listed on the previous page. Please categorize each of the thoughts you listed into one of the following categories using the drop-down menus beside each thought:

Positive thought related to the video
Negative thought related to the video
Neutral thought related to the video
Unrelated thought related to the video

${q://QID12/ChoiceTextEntryValue/1}	
${q://QID12/ChoiceTextEntryValue/2}	
${q://QID12/ChoiceTextEntryValue/3}	
${q://QID12/ChoiceTextEntryValue/4}	
${q://QID12/ChoiceTextEntryValue/5}	
${q://QID12/ChoiceTextEntryValue/6}	
${q://QID12/ChoiceTextEntryValue/7}	
${q://QID12/ChoiceTextEntryValue/8}	
${q://QID12/ChoiceTextEntryValue/9}	

Attention Check

Did the cashier in the video offer the man a free bottle of Coca Cola?

- ○ No
- ○ Yes

Ad Evaluation

How would you evaluate the Coca-Cola ad that you watched?

Do not like at all	○	○	○	○	○	○	○	Like a lot
Not effective at all	○	○	○	○	○	○	○	Very effective
Not engaging at all	○	○	○	○	○	○	○	Very engaging

Ad Familiarity

Have you seen this Coca-Cola ad before?

- ○ No
- ○ Yes

Comments about study

If you have any comments about this study, feel free to share them:

Video technical problems

Did you experience any technical difficulties in today's study session?

- ○ No
- ○ Yes. Please describe:

Text Condition

Please read this short narrative:

On a hot, radiantly sunny day, a young man stepped into a convenience store, grey T-shirt soaked with sweat. Eager to quench his thirst, he asked the young woman at the counter, "Hi, cold drinks?" The cashier, lost in her phone, absentmindedly gestured towards the refrigerated drinks aisle without lifting her eyes.

As the man navigated through the aisles, the cashier glanced at him and her attention was immediately captured. Looking at the computer screen displaying footage from the surveillance cameras, she observed the young man selecting a refreshing bottle of Coca-Cola.

A smile spread on her face as the unfolding scene on the screen captivated her. She watched the young man chug the bottle of Coca-Cola, relishing the cold beverage.

When he approached the counter to pay, she decided to add a touch of fun to his day.

"Oh, you're in luck," she declared with an admiring grin. "It's happy hour, so you've won another Coca-Cola for free. But there's a catch—you have to enjoy it right here in the store."

The young man, catching on to the playful atmosphere, reciprocated the smile. With a nod of agreement, he opened the second Coca-Cola, savoring the unexpected bonus on this hot summer's day.

Cognitive Effort questions

Please answer the following questions about your experience reading the narrative. There are no right or wrong answers, so please answer candidly.

	1=Not a lot	2	3	4	5	6	7
How much did you need to focus to read the text?	○	○	○	○	○	○	○
How much effort did it take to read the text?	○	○	○	○	○	○	○
How much attention did it take to read the text?	○	○	○	○	○	○	○
How much did you need to concentrate to read the text?	○	○	○	○	○	○	○

Narrative transportation questions

"How do you feel about the narrative you just read?" – questions below on a 7-point scale from Not at all to Very Much

- While I was reading the narrative, I could easily picture the events in it taking place
- While I was reading the narrative, activity going on in the room around me was on my mind
- I could picture myself in the scene of the events shown in the narrative
- I was mentally involved in the narrative while viewing it
- After the narrative ended, I found it easy to put it out of my mind
- I wanted to learn how the narrative ended
- The narrative affected me emotionally
- I found myself thinking of ways the narrative could have turned out differently
- I found my mind wandering while reading the narrative
- The events in the narrative are relevant to my everyday life
- I had a vivid mental image of the main character

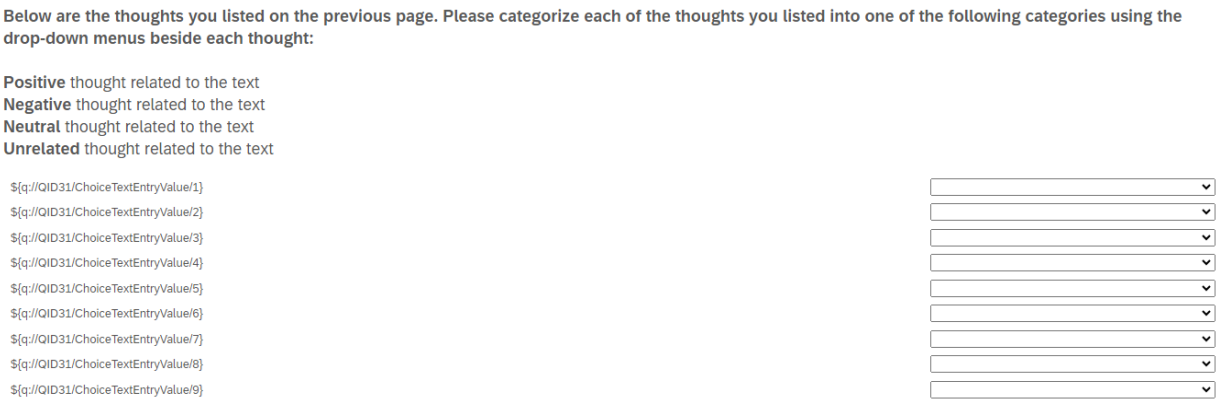
Thought Listing

Please list all the thoughts that came to your mind while reading the previous text. List one thought per line, up to as many (or as few) thoughts as you had.

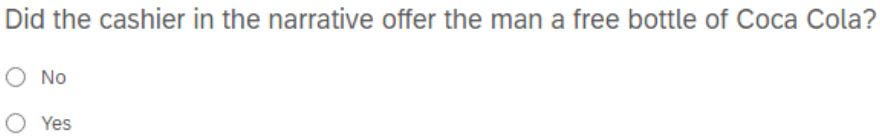
Thought 1	
Thought 2	
Thought 3	
Thought 4	
Thought 5	
Thought 6	
Thought 7	
Thought 8	
Thought 9	

Thought Piping – Evaluation

Previous thought questions answers piped into the new question – drop down menu allowing participants to categorize thoughts as “Positive, Negative, Neutral or Unrelated”.

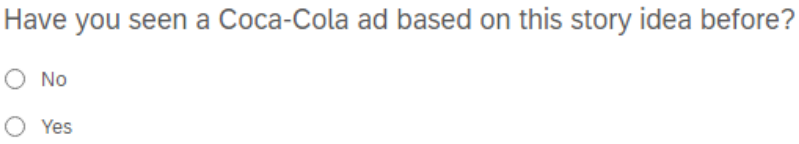


Attention Check



Ad Evaluation

Ad Familiarity



Comments about study

Feel free to share any comments you may have about this Coca-Cola ad content study:

Appendix D: Stimuli and Measures – Study 3

Video Condition

Cognitive Load Manipulation – (If subject to high load)

Memory Task

Please try to memorize the following 7-number sequence. We would like you to keep rehearsing this sequence in your head on the next screen. Afterwards, we will ask you to type out the sequence, as best you can, from memory. Your compensation will not be affected by your answer, so no need to write the sequence down - we just want you to keep it in your mind.

Rehearse this sequence in your head: 1235784

Please keep rehearsing it on the next screen.

Please watch this short video in full. You will be able to advance to the next page after you watch the video.

https://www.youtube.com/watch?v=XLCm5LjkTJg

Manipulation Result

Please enter the 7-number sequence that we showed you earlier, as best as you can remember:

Narrative transportation questions

"How do you feel about the video you just watched?" – questions below on a 7-point scale from Not at all to Very Much

- While I was viewing the video, I could easily picture the events in it taking place
- While I was viewing the video, activity going on in the room around me was on my mind
- I could picture myself in the scene of the events shown in the video
- I was mentally involved in the video while viewing it
- After the video ended, I found it easy to put it out of my mind
- I wanted to learn how the video ended
- The video affected me emotionally
- I found myself thinking of ways the video could have turned out differently
- I found my mind wandering while watching the video
- The events in the video are relevant to my everyday life
- I had a vivid mental image of the main character

Thoughts Listing

Please list all the thoughts that came to your mind while watching the video. List one thought per line, up to as many (or as few) thoughts as you had.

Thought 1

Thought 2

Thought 3

Thought 4

Thought 5

Thought 6

Thought 7

Thought 8

Thought 9

Thought Piping – Evaluation

Previous thought questions answers piped into the new question – drop down menu allowing participants to categorize thoughts as “Positive, Negative, Neutral or Unrelated”.

Below are the thoughts you listed on the previous page. Please categorize each of the thoughts you listed into one of the following categories using the drop-down menus beside each thought:

Positive thought related to the video
Negative thought related to the video
Neutral thought related to the video
Unrelated thought related to the video

${q://QID12/ChoiceTextEntryValue/1}	
${q://QID12/ChoiceTextEntryValue/2}	
${q://QID12/ChoiceTextEntryValue/3}	
${q://QID12/ChoiceTextEntryValue/4}	
${q://QID12/ChoiceTextEntryValue/5}	
${q://QID12/ChoiceTextEntryValue/6}	
${q://QID12/ChoiceTextEntryValue/7}	
${q://QID12/ChoiceTextEntryValue/8}	
${q://QID12/ChoiceTextEntryValue/9}	

Attention Check

Did the cashier in the video offer the man a free bottle of Coca Cola?

- ○ No
- ○ Yes

Ad Evaluation

How would you evaluate the Coca-Cola ad that you watched?

Do not like at all	○	○	○	○	○	○	○	Like a lot
Not effective at all	○	○	○	○	○	○	○	Very effective
Not engaging at all	○	○	○	○	○	○	○	Very engaging

Ad Familiarity

Have you seen this Coca-Cola ad before?

- ○ No
- ○ Yes

Comments about study

If you have any comments about this study, feel free to share them:

Video technical problems

Did you experience any technical difficulties in today's study session?

- ○ No
- ○ Yes. Please describe:

Text Condition

Cognitive Load Manipulation – (If subject to high load)

Memory Task

Please try to memorize the following 7-number sequence. We would like you to keep rehearsing this sequence in your head on the next screen. Afterwards, we will ask you to type out the sequence, as best you can, from memory. Your compensation will not be affected by your answer, so no need to write the sequence down - we just want you to keep it in your mind.

Rehearse this sequence in your head: 1235784

Please keep rehearsing it on the next screen.

Please read this short narrative:

On a hot, radiantly sunny day, a young man stepped into a convenience store, grey T-shirt soaked with sweat. Eager to quench his thirst, he asked the young woman at the counter, "Hi, cold drinks?" The cashier, lost in her phone, absentmindedly gestured towards the refrigerated drinks aisle without lifting her eyes.

As the man navigated through the aisles, the cashier glanced at him and her attention was immediately captured. Looking at the computer screen displaying footage from the surveillance cameras, she observed the young man selecting a refreshing bottle of Coca-Cola.

A smile spread on her face as the unfolding scene on the screen captivated her. She watched the young man chug the bottle of Coca-Cola, relishing the cold beverage.

When he approached the counter to pay, she decided to add a touch of fun to his day.

"Oh, you're in luck," she declared with an admiring grin. "It's happy hour, so you've won another Coca-Cola for free. But there's a catch—you have to enjoy it right here in the store."

The young man, catching on to the playful atmosphere, reciprocated the smile. With a nod of agreement, he opened the second Coca-Cola, savoring the unexpected bonus on this hot summer's day.

Manipulation Result

Please enter the 7-number sequence that we showed you earlier, as best as you can remember:

Narrative transportation questions

"How do you feel about the narrative you just read?" – questions below on a 7-point scale from Not at all to Very Much

- While I was reading the narrative, I could easily picture the events in it taking place
- While I was reading the narrative, activity going on in the room around me was on my mind
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- The narrative affected me emotionally
- I found myself thinking of ways the narrative could have turned out differently
- I found my mind wandering while reading the narrative
- The events in the narrative are relevant to my everyday life
- I had a vivid mental image of the main character

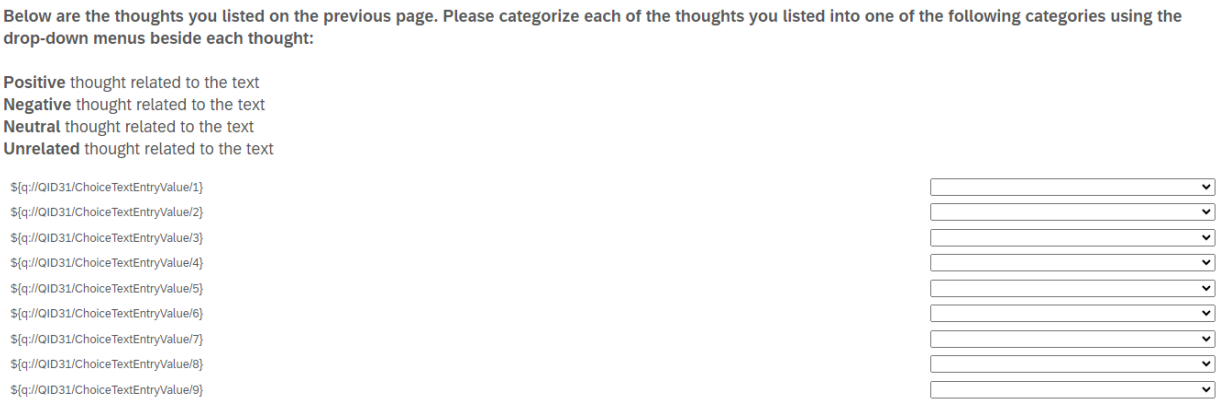
Thought Listing

Please list all the thoughts that came to your mind while reading the previous text. List one thought per line, up to as many (or as few) thoughts as you had.

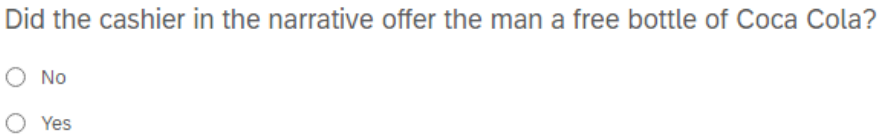
Thought 1
Thought 2
Thought 3
Thought 4
Thought 5
Thought 6
Thought 7
Thought 8
Thought 9

Thought Piping – Evaluation

Previous thought questions answers piped into the new question – drop down menu allowing participants to categorize thoughts as “Positive, Negative, Neutral or Unrelated”.

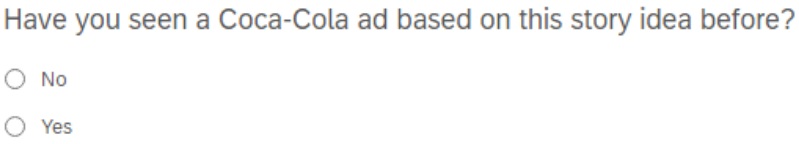


Attention Check



Ad Evaluation

Ad Familiarity



Comments about study

Feel free to share any comments you may have about this Coca-Cola ad content study: