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## Theorizing Foreshadowed Death Narratives: Examining the Impact of Character Death on Narrative Processing and Skin Self-Exam Intentions

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### Abstract

Narratives are common in health campaigns and interventions, with many depicting individuals battling a particular illness or disease. Past research has focused primarily on the form and effects of survivor stories, but considerably less attention has been devoted to stories in which 1 or more of the central characters passes away. The goal of the current study was to compare the relative persuasive impact of survivor and death narratives in influencing skin prevention behaviors and to test narrative mediators that might explicate underlying mechanisms of effect. To that end, adults ( $N = 635$ ,  $M_{age} = 32.43$  [ $SD = 11.23$ ]) were randomly assigned to 1 of 6 narrative intervention conditions in an online message experiment. Participants read 1 of 2 stories about a person with melanoma (Rusty or Diane) that was manipulated as a narrative depicting the survival, death, or foreshadowed death of the main character. Foreshadowed death narratives increased intentions to perform a skin self-exam (SSE), a relationship that was mediated by narrative transportation and perceived SSE benefits. The results support the central postulate of narrative transportation theory and the utility of using foreshadowed death narratives in communication-based interventions designed to increase SSE frequency.

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Narratives, or stories, are a common component of human communication (Abbott, 2002). Health communication researchers are interested in narrative persuasion—the use of stories to alter human behavior—and identifying meaningful narrative features and effects is a central goal of this program of research (Bilandzic & Busselle, 2008; Hinyard & Kreuter, 2007; Kreuter et al., 2007; Larkey & Hecht, 2010).

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### Supplemental Material

A supplemental online appendix (Narrative Stimuli) to this article is available on the publisher's website at <http://dx.doi.org/10.1080/10810730.2016.1252816>.

Identifying features that increase effects will further explicate narrative theories—such as narrative transportation theory (Green & Brock, 2000), the story model (Yale, 2013), and the education overcoming resistance model (Moyer-Gusé & Nabi, 2010)—and provide health practitioners with key insights that could facilitate the design and execution of narrative-based campaigns. Concerning the latter, communicators are continually confronted with the opportunity to integrate narratives into their messages. Unfortunately, story selection can be a challenging process, as communicators are confronted with a near infinite number of variables to consider. For instance, when designing a cancer control campaign, communicators could use stories about peers or celebrities, people confronting social or structural barriers, individuals who are successfully modeling the behavior or those who struggle with adherence. At present, these decisions are rarely informed by research—as available evidence is still limited—a situation that potentially jeopardizes pivotal design decisions (Kreuter et al., 2007).

One feature of a narrative that could be meaningful is whether a character dies. Researchers have studied the form and effects of survivor stories (e.g., Eddens et al., 2009; Kreuter et al., 2008; McQueen & Kreuter, 2010; McQueen, Kreuter, Kalesan, & Alcaraz, 2011; Thompson & Kreuter, 2014), but research has devoted less attention to stories about death. Death narratives—stories in which one or more central characters passes away—are both varied and normative. When a person passes away, it is common for friends, family, and loved ones to recount the story, and certain death narratives draw the attention of large numbers of (unacquainted) individuals. Death narratives could be influential, as they depict a mortal threat that could impact a number of narrative cognitions, such as transportation, character identification, and believability (Busselle & Bilandzic, 2008; Cohen, 2001; Green & Brock, 2000; Yale, 2013). Moreover, decision-making research has found that people attend more to losses than comparable gains, a phenomenon referred to as *loss aversion* (Yechiam & Hochman, 2013). Health researchers have found it challenging to translate loss aversion into a viable message strategy (see O’Keefe & Jensen, 2006, 2007, 2009), but narrative persuasion is an intriguing possibility in that stories more closely align with the narrative stimuli often used in decision-making research (see Ert & Erev, 2013).

The present study initiates a program of research focused on explicating the features and effects of death narratives. To that end, this study examines—via a narrative intervention—whether death narratives about melanoma influence intentions to perform skin self-examination (SSE). Melanoma was selected as a context as it is the deadliest form of skin cancer (Siegel, Miller, & Jemal, 2016) and thus a good example of an illness for which death narratives are both plausible and normative.

## A Deadly Cancer: Melanoma and SSE Performance

Detecting all types of skin cancer is an important public health goal; however, the deadliest type, and the focus of most screening efforts, is melanoma. Melanoma incidence has been increasing steadily over the past 30 years (Siegel et al., 2016). Not only is melanoma increasingly common, but it is also very deadly. The 5-year survival rate for distant stage melanoma is only 15%, with approximately one person dying of this illness every 61 minutes in the United States. Five-year survival rates for melanoma improve dramatically if

the cancer is caught before it advances to a distant stage. The survival rate is 98% if the cancer has not spread to the lymph nodes and 61% if it is at the regional stage (Siegel et al., 2016).

There is a pressing need for screening approaches that can identify high-risk individuals and suspicious moles (Goodson & Grossman, 2009). Some dermatologists recommend that annual clinical examinations be supplemented by routine SSE (Goodson & Grossman, 2009). A few studies suggest that routine SSE increases the likelihood that melanomas will be detected at an early or regional stage and may reduce melanoma mortality by as much as 63% (Berwick, Begg, Fine, Roush, & Barnhill, 1996; Goodson & Grossman, 2009; Hamidi, Peng, & Cockburn, 2010).

Though SSE educational interventions are promising, there is a need for additional research. Less than half of U.S. adults report ever examining their skin for cancerous lesions, and even fewer (9%) carry out thorough examinations (Miller et al., 1996). Thus, existing SSE practices exhibit frequency concerns (U.S. Preventive Services Task Force, 2009). Researchers can advance the evidence base by developing and testing innovative approaches to increasing SSE performance. Despite frequent calls for such research (Goulart, Malvey, Puig, Martin, & Marghoob, 2011; Hamidi et al., 2010), few innovative SSE studies have been conducted.

## **Narrative Mediators: Transportation, Identification, Believability, and Benefits**

Narrative persuasion is an innovative approach to increasing SSE adherence, as narrative features that could influence performance remain unexplored. Furthermore, stories have the potential to influence hard-to-reach groups, including those with education, literacy, motivation, or overload barriers (Jensen, 2012; Jensen et al., 2014; Kreuter et al., 2007). Telling and listening to stories is a shared experience across cultures and an activity that can be effective even in the absence of written literacy (Abbott, 2002). Compared to didactic persuasive messages, narratives may yield increased attention by directing receivers toward the plot rather than the implicit or explicit arguments (Dal Cin, Zanna, & Fong, 2002; Green & Brock, 2000; Kreuter et al., 2010; Slater & Rouner, 2002). As a result, narratives also have the potential to reduce counterarguing that could undermine persuasive attempts (Nabi, Moyer-Gusé, & Byrne, 2007).

From a theory standpoint, researchers utilize several frameworks for examining narrative processes and effects. Unification of these frameworks into a central theory for narrative research is an ongoing programmatic aim (Moyer-Gusé, 2008) and one that will likely see key constructs from several programs identified as consistently meaningful mediators. The current research explores four mediators (transportation, identification, believability, and perceived benefits) culled from three theoretical frameworks. Each mediator and theory is briefly described here.

## **Narrative Transportation**

One of the most prominent frameworks in narrative persuasion is transportation imagery theory (Green & Brock, 2000). Transportation is the degree to which stories can transport or immerse readers into a story. Stories with high transportation are more likely to foster connections with characters, increase the realism of the story, and reduce the reader's ability to argue against the health message (Green & Brock, 2000). In this model, transportation is hypothesized as the central mechanism mediating the relationship between narrative message features and persuasive outcomes.

## **Character Identification**

Identification is a mechanism that focuses on audience involvement with story characters (Cohen, 2001). Moyer-Gusé (2008) defined it as “an emotional and cognitive process whereby a viewer takes on the role of a character in a narrative” (p. 410). Though transportation and identification overlap conceptually (Moyer-Gusé, 2008), the notion that audiences can uniquely identify with characters—and that this perception might matter—remains compelling. For instance, some features of a narrative are operationalized at the level of characters—whether someone is a celebrity or not—and events within a story can influence perceptions of the characters directly (“I can’t believe he did that!”). Audiences also seem capable of distinguishing between story-level perceptions and character-level perceptions (“I loved the characters, but the story was hard to follow”).

## **Narrative Believability**

Pennington and Hastie's story model offers a complementary narrative persuasion framework. Originally developed to study legal communication, this model posits that people make decisions by building stories from available information and then evaluating specific aspects of the constructed story in order to arrive at a decision (Pennington & Hastie, 1992). Yale (2013) operationalized story-specific features evaluated in the story model, conceptualizing them as the factors of a narrative that affect believability (Yale, 2013). Thus, the narrative believability construct is composed of four factors that influence a narrative's persuasiveness: coverage, consistency, plausibility, and completeness. A narrative exhibits good coverage when it contains all of the information a reader expects, is consistent when it contains no internal contradictions, is plausible when it is consistent with a reader's beliefs about what typically happens in similar situations, and is complete when it conforms to the expected narrative structure and flow (Yale, 2013).

## **Perceived Benefits/Barriers**

The health belief model posits that messages can exert impact by altering audience perceptions of benefits and barriers (Jones et al., 2015). Accordingly, communicators routinely select stories that highlight the perceived benefits and barriers of performing an action (Jensen, King, et al., 2014). For example, stories that depict the consequences of engaging in preventive health behaviors such as SSE could enhance perceptions of SSE benefits (Green, 2006). Dillard, Fagerlin, Cin, Zikmund-Fisher, and Ubel (2010) found that stories about people overcoming typical barriers to colorectal cancer screening reduced perceived barriers and increased intentions to screen.

## Four Pathways to Narrative Impact

Together, these approaches suggest that narratives are more influential when narrative transportation—the experience of getting lost in a story—is high or when the audience identifies with central characters (Busselle & Bilandzic, 2008; Cohen, 2001; Green & Brock, 2000). In line with the story model, Yale (2013) postulated that exploring narrative believability could help researchers identify aspects of a story that deviated from audience beliefs and expectations about story plot, events, and features. Finally, narratives have the potential to influence audiences if they depict benefits of a behavior or demonstrate avenues for overcoming barriers (Dillard et al., 2010; Green, 2006). Combined, existing narrative research provides several mediator pathways by which a narrative feature could exert influence on audience attitudes, knowledge, or behaviors.

## Narrative Features: Death and Foreshadowing

Though promising, the potential of narrative persuasion remains untapped, as researchers have not identified a taxonomy of key narrative features that increase transportation, identification, and believability. One barrier to developing a taxonomy of narrative features is that researchers may struggle to isolate components in the context of a story. To be sure, narrative-based information is often complex, with interrelated components that seem difficult to extract as generalizable features.

As a starting point, two aspects of narratives seem rife with variable features: characters and events. Whether writing a fictional narrative or merely selecting a narrative from a pool of real stories, communicators can manage aspects of the main character/characters. For example, the main character could model normative, desirable, or culturally relevant behavior, a situation that could increase self-efficacy, character identification, or parasocial interaction (Bandura, 2004; Cohen, 2001; Hopfer, 2012; Larkey & Hecht, 2010). But stories are also about events, and these can be just as compelling to the audience. Death is one such event that, depending on how it is disclosed to the audience, could significantly influence audience behavior.

### Death

Death is a major event with the potential to alter perception of a narrative, attention to a narrative, and the impact of a narrative. Even the deaths of fictional protagonists can be impactful as receivers form parasocial relationships with characters (Brown, 2012), and narratives provide examples that can be more vivid and memorable than real life (Shrum, 2009). Character death is a narrative event that could trigger anomalous replotting—audience attempts to reconstruct the story to a more desirable outcome—an indicator of impact (Green & Brock, 2000). Death narratives also could be viewed as a type of fear appeal wherein the death of a character influences perceptions of threat severity and susceptibility (Witte, 1994). Moreover, although fear appeal research has found that fear can lead to defensive avoidance (Witte, 1994), narratives, by focusing attention on the plot, may cultivate and maintain audience attention for information that normally evokes significant fear (Moyer-Gusé, 2008). For example, death narratives could reduce defensive avoidance

by focusing attention on the character in the story rather than the otherwise fear-inducing threat.

Health practitioners have utilized death narratives in the past, sometimes to significant effect. For instance, the Utah Cancer Control Program designed a colorectal cancer screening campaign around the death narrative of a local celebrity, outdoor fish and game reporter Doug Miller. The highly popular campaign—viewed by 98% of adults 50 and older in the state of Utah—featured Miller’s daughter talking about her father’s untimely death due to colon cancer. It is noteworthy that the Utah Cancer Control Program’s colorectal cancer screening campaigns have helped to increase colonoscopy utilization in the state of Utah from 48% (in 2001) to 66.3% (in 2010) to 70.3% (in 2012; Balough & Herget, 2013).

### Foreshadowing

The present study considers the relative impact of narratives that depict character death (death narratives) versus those focused on characters who survive a potentially mortal event (survival narratives). Within this narrative dichotomy are other features that could be varied, including the cause, impact, moral context, and temporal disclosure of the event. Concerning the latter, this study examines whether foreshadowing influences audience reaction to character death. *Foreshadowing* “refers to situations where some future events are told ahead of time” (Bae, Cheong, & Vella, 2013, p. 1). For example, a story could initially depict the ultimate victory of the main characters in a struggle and then tell the story of how they achieved that victory. Or a narrative could simply allude to victory by having a narrator say, “The story of a triumph often begins with a struggle.” Both are forms of foreshadowing that refer to future events with varying levels of specificity.

Given the impact of character death, authors often foreshadow this tragic event to prepare the audience (Bae et al., 2013). In other words, one function of foreshadowing could be to reduce the emotional impact of an event so that audiences are mentally prepared to process it. Preparation foreshadowing would seem most useful in situations in which the future event generates negative affect such as fear, worry, anger, or disgust. Alternatively, foreshadowing can generate interest and suspense for what is to come (Bae et al., 2013). As an example, research on narratives has found that foreshadowing future story events enhances audience curiosity (Wouters, van Oostendorp, Boonekamp, & van der Spek, 2011). Interest foreshadowing seems ideal in narratives in which the linear story starts slow or does not indicate the story arc that will follow.

Audience expectations for foreshadowing are currently unknown. Do audiences expect foreshadowing in certain contexts, and how does that foreshadowing ultimately influence their perception of the narrative? If audiences expect foreshadowing in death narratives, then this feature could influence perceptions of narrative believability, which are often based on narrative expectations (Yale, 2013). Foreshadowing in death narratives could also trigger suspense (interest foreshadowing) and lead to increased narrative transportation and character identification. Increased attention early in the story could lead to greater awareness of perceived benefits, as the audience notices missed opportunities that may have altered the foreshadowed ending.

## Research Questions

To this end, participants were randomly assigned to read a melanoma story in which character death was manipulated (survival, death, or foreshadowed death), a manipulation that could impact narrative transportation, character identification, narrative believability, perceived SSE benefits, and SSE intentions (Research Questions 1a–1e). In line with narrative transportation theory, the story model, and past research (Cohen, 2001; Dillard et al., 2010; Green, 2006; Green & Brock, 2000; Yale, 2013), four variables (transportation, identification, believability, and perceived SSE benefits) are also explored as mediators of the relationship between exposure to a death narrative and SSE intentions (Research Questions 2a–2d).

## Method

### Study Design

A 3 (narrative type: survival, death, vs. foreshadowed death)  $\times$  2 (narrative character: Rusty vs. Diane) narrative intervention was embedded in an online survey. Participants were recruited through a third-party survey company over a period of 4 days and received \$0.35 and entry into a \$100 raffle for completing the study. Participants were adults 18 and older living in the United States. In the study, participants completed a pretest measuring demographics and prior SSE behavior; read a narrative about a person with melanoma; then completed a posttest measuring narrative transportation, character identification, narrative believability, SSE benefits, and SSE behavioral intention. A total of 700 participants completed the survey. Per Downs, Holbrook, Sheng, and Cranor (2010), 65 were dropped from the analysis for violating the 90th percentile speed threshold, as this suggested that the participants were not conscientiously attending to the experimental task. All methods were approved by a university institutional review board.

### Participants

Adults 18 and older ( $N = 635$ ) participated in an online study. Participants ranged in age from 18 to 68 ( $M = 32.43$ ,  $SD = 11.23$ ). Approximately half of the participants were male (53.5%), and 64.9% had a household income below the U.S. median of \$51,371. Participants represented 46 states and the District of Columbia. Education was distributed as follows: less than high school (0.6%), high school degree (11.3%), some college (40.2%), 4-year degree (36.1%), and advanced degree (11.8%). Participants could select more than one racial/ethnic category. Race/ethnicity for the sample was 79.4% Caucasian, 8% Black, 9.4% Asian, 6.8% Hispanic or Latino, 1.4% Native American/American Indian, 0.2% Native Hawaiian/Pacific Islander, and 0.5% self-described as other. SSE behavioral intention was a key outcome in this study, so prior SSE performance was also measured before the intervention. Approximately 40% of participants had never performed SSE (43.9%), whereas 35.3% reported performing SSE less than once a month, 12% once a month, 3.5% two or three times a month, 2.2% once a week, and 1.4% daily.

## Intervention

All participants were randomized to one of the six versions of written narratives about a person with melanoma. The narratives were based on two real patient narratives collected by the Skin Cancer Foundation and posted publicly on their website. One of the stories was about a male with melanoma and the other was about a female with melanoma. In Rusty's story, an unchecked mole on the character's shoulder reaches Stage IV melanoma and metastasizes to his brain. Rusty undergoes surgery and intensive therapy to combat the cancer. In Diane's story, the character learns that a mole on her back is Stage III melanoma. She undergoes extensive surgery to remove the cancer.

Character last names were changed and story elements revised to protect the identity of the actual patients and to make all story versions roughly comparable in length. Modifying the stories was also deemed necessary as the research team created three versions of each narrative: survival, death, and foreshadowed death. In the original narratives, both patients survived their battle with melanoma. Thus, the original stories were used in the survival condition. In the death condition, the ending of the narrative was altered such that the main character lost the battle with melanoma. For instance, in Diane's story, the death narrative ended as follows:

Diane's dermatologist sent the mole out for a biopsy and asked if she wanted to schedule an appointment with a plastic surgeon in case the news was bad. Diane decided to wait. This turned out to be a critical decision as the mole was a stage III melanoma (a type of skin cancer). By the time Diane met with a plastic surgeon, the cancer had progressed past the point of treatment. The first available plastic surgeon happened to have a close friend and colleague who was on the team of the Melanoma Clinic at Johns Hopkins. Thanks to the plastic surgeon's connections, Diane was soon put in an experimental trial by the head oncologist at the Melanoma Clinic. Before Diane knew it, she had a bilateral node dissection under her arms. Her sentinel lymph nodes proved to be cancerous and were removed. The axillary nodes were clear. Diane's cancer had to be treated on both sides of her body. In June 2013, Diane lost her battle with melanoma. Still, she felt blessed that a stranger at the gym took the time to warn her about a mole. She also believed that it is important to be more vigilant about checking moles. "I was being sun safe," Diane said shortly before her death, "but I wasn't checking my skin or going to a dermatologist. Sun safe isn't enough."

In the foreshadowed death narrative, a single sentence was added to the beginning of the story hinting that the main character would lose the battle with melanoma. For both foreshadowed narratives, the first sentence of the story was "Not everyone who gets melanoma lives." In all other respects, the foreshadowed narrative was identical to the death narrative (all narratives are provided in a supplemental online appendix).

## Measures

**Demographics**—Participants reported their age, gender, household income, ethnicity, educational attainment, and past SSE performance.



**Narrative Transportation**—Narrative transportation was measured using the 11 general items of Green and Brock’s (2000) narrative transportation scale ( $M = 5.37$ ,  $SD = 3.18$ ,  $\alpha = .80$ ). Participants responded using a 7-point scale ranging from *not at all* to *very much* to statements such as “I could picture myself in the scene of events described in the narrative.”

**Character Identification**—Identification with the main character of the narrative (Rusty or Diane) was measured using Cohen’s (2001) 10-item character identification scale ( $M = 5.10$ ,  $SD = 1.83$ ,  $\alpha = .88$ ). Sample items include “While reading, I felt I could really get inside [character]’s head.” Participants responded using a 7-point scale ranging from *strongly disagree* to *strongly agree*.

**Narrative Believability**—Narrative believability was measured using Yale’s (2013) 12-item Narrative Believability Scale (NBS-12), which has four dimensions: plausibility ( $M = 6.11$ ,  $SD = 1.08$ ,  $\alpha = .81$ ; e.g., “I believe this story could be true”), completeness ( $M = 6.00$ ,  $SD = 1.35$ ,  $\alpha = .66$ ; e.g., “It was easy to follow the story from beginning to end”), consistency ( $M = 5.88$ ,  $SD = 1.09$ ,  $\alpha = .77$ ; e.g., “All of the facts in this story agreed with each other”), and coverage ( $M = 5.36$ ,  $SD = 1.84$ ,  $\alpha = .67$ ; e.g., “There was important information missing from this story”). Participants responded using a 7-point scale ranging from *strongly disagree* to *strongly agree*.

**SSE Benefits**—A 4-item measure of SSE benefits was culled from past research (Manne & Lessin, 2006). Participants responded using a 5-point scale ranging from *strongly disagree* to *strongly agree* ( $M = 4.01$ ,  $SD = 0.73$ ,  $\alpha = .84$ ) to statements such as “Doing skin self-exams is a part of overall good health care” and “Doing skin self-exams would provide me peace of mind about my health.”

**SSE Behavioral Intention**—Intention to engage in SSE was measured using two items: “Do you intend to start checking your body within the next month?” and “Do you intend to check your body once a year?” Participants responded using a 4-point scale ranging from *very unlikely* to *very likely* ( $M = 2.81$ ,  $SD = 0.86$ ,  $\alpha = .60$ ). Alpha was low for the combined measure; however, analyzing each item separately yielded identical results as for the combined measure. For this reason, the combined measure was utilized in all analyses.

## Results

Participants were randomly assigned to experimental conditions; however, a two-way multivariate analysis of variance was conducted to examine whether randomization effectively eliminated demographic differences across cells. Narrative type and character were entered as fixed factors and age, gender, household income, ethnicity, education, and past SSE performance were included as dependent variables. No statistically significant multivariate effect was observed for narrative type, narrative character, or Narrative Type  $\times$  Narrative Character: narrative type, Pillai’s trace = .006,  $F(12, 1250) = 0.337$ ,  $p = .982$ ; narrative character, Pillai’s trace = .003,  $F(6, 624) = 0.281$ ,  $p = .946$ ; Narrative Type  $\times$  Narrative Character, Pillai’s trace = .017,  $F(12, 1250) = 0.897$ ,  $p = .549$ . Given these results, no variables were included as covariates in subsequent analyses.

Research Questions 1a–1e questioned whether narrative type, narrative character, or the interaction of the two would be related to transportation, identification, believability, SSE benefits, and SSE intentions. A statistically significant multivariate effect was observed for narrative type and narrative character, consistent with the idea that both narrative type and character impacted one or more of the dependent variables: narrative type, Pillai's trace = .045,  $F(16, 1246) = 1.781$ ,  $p = .029$ ; narrative character, Pillai's trace = .041,  $F(8, 622) = 3.358$ ,  $p = .001$ .

Narrative type was significantly related to transportation, identification, NBS—completeness, and SSE benefits. Narrative type was also marginally ( $p = .069$ ) related to SSE intentions (see Table 1). Bonferroni post hoc tests revealed that participants in the foreshadowed death condition had greater transportation, greater identification, and (marginally) greater SSE intentions than those in either the survival or death conditions. Compared to the death condition, the foreshadowed death condition also yielded higher SSE benefits and NBS—completeness scores. Concerning the latter, the death narrative demonstrated believability concerns such that participants felt that the story was incomplete.

Narrative character (Diane or Rusty) was significantly related to NBS—plausibility, NBS—consistency, and NBS—coverage (see Table 2). Bonferroni post hoc tests revealed that participants evaluated the Diane narrative higher in plausibility, consistency, and coverage. There was also a significant Narrative Type  $\times$  Character interaction for coverage,  $F(2, 635) = 4.964$ ,  $p = .007$ . The Rusty survival narrative was rated lower in coverage ( $M = 5.09$ ,  $SD = 1.24$ ) than the Diane survival narrative ( $M = 5.61$ ,  $SD = 0.94$ ). In fact, the Rusty survival narrative had the lowest coverage rating of all narratives in the study.

A marginally significant relationship was identified between narrative type and SSE intentions. Accordingly, Research Questions 2a–2e queried whether transportation, identification, believability, or SSE benefits mediated the relationship between narrative type and SSE intentions. Mediation was tested using a conditional process modeling program, PROCESS, that utilizes an ordinary least squares path analytical framework to test for both direct and indirect effects (Hayes, 2012). PROCESS was ideal for analyzing the current data because it allows researchers to explore parallel mediation models. All indirect effects were subjected to follow-up bootstrap analyses with 1,000 bootstrap samples and 95% bias-corrected confidence intervals (CIs).

In light of the results of the multivariate analysis of variance, narrative type was recoded as a dummy variable (0 = survival, death; 1 = foreshadowed death), as foreshadowed death was the key condition of interest. The dummy variable was significantly related to SSE intentions ( $r = .09$ ,  $R^2 = .01$ ),  $F(1, 633) = 5.37$ ,  $p = .02$  (see Figure 1). The parallel mediation model was also significant ( $r = .51$ ,  $R^2 = .26$ ),  $F(8, 626) = 26.86$ ,  $p < .001$ . With mediators in the model, narrative type was no longer significantly related to SSE intentions. Tests for indirect effects revealed that the direct effect of narrative type on SSE intentions was fully mediated by transportation ( $b = .0535$ ,  $SE = .0198$ , 95% CI [.0225, .1034]) and SSE benefits ( $b = .0683$ ,  $SE = .0225$ , 95% CI [.0283, .1225]). In other words, foreshadowed death narratives triggered increased SSE intentions because participants experienced greater transportation and exhibited increased SSE benefits following exposure. No mediation was found for

identification ( $b = .0213$ ,  $SE = .0152$ , 95% CI  $[-.0036, .0542]$ ), NBS—plausibility ( $b = -.0003$ ,  $SE = .0056$ , 95% CI  $[-.0149, .0108]$ ), NBS—completeness ( $b = .0011$ ,  $SE = .0067$ , 95% CI  $[-.0107, .0179]$ ), NBS—consistency ( $b = -.0112$ ,  $SE = .0099$ , 95% CI  $[-.0463, .0009]$ ), or NBS—coverage ( $b = .0000$ ,  $SE = .0068$ , 95% CI  $[-.0158, .0131]$ ).

## Discussion

Foreshadowed death narratives increased SSE intentions through two theorized mediators: transportation and perceived benefits. To date, transportation is one of the more robust mediators in the narrative persuasion literature. Therefore, it is essential to identify narratives that are likely to transport audiences. Green (2006) has encouraged further testing of the transportation imagery model in the context of cancer communication. The results of the present study highlight transportation as a key pathway through which narrative messages about melanoma can persuade audiences to increase intentions to engage in cancer screening. Thus, results support the central postulate of narrative transportation theory (Green & Brock, 2000). In a larger sense, the influence of foreshadowed death narratives suggests that character death is a narrative event worthy of further consideration, and it warrants possible inclusion in an eventual taxonomy of meaningful narrative features.

For high-risk behaviors, decision-making researchers have found that people attend more closely to losses than corresponding gains (Kahneman & Tversky, 1979; Yechiam & Hochman, 2013), a finding that mirrors the increased transportation experienced by participants in the foreshadowed death condition. Moreover, the importance of foreshadowing—operationalized as a sentence at the beginning of the narrative—is consistent with loss aversion as a possible underlying explanation for the observed effects. When character death was revealed at the onset, then participants experienced increased transportation.

Given the difficulty of translating loss aversion into an effective communication strategy (O’Keefe & Jensen, 2006), this finding provides researchers with a promising avenue for further exploration. Loss aversion is a robust cognitive phenomenon, but non-narrative, loss-framed messages have yielded inconsistent or no significant differences compared to gain-framed alternatives (O’Keefe & Jensen, 2006, 2007, 2009). Participants in the current study were influenced by foreshadowed death narratives, which could take the form of loss-framed messages if they highlighted the disadvantages of noncompliance with a recommended behavior (e.g., missing early-stage melanoma because of lack of SSE). Future research could articulate survivor and death narratives in terms of gain/loss to examine whether narrative forms of communication yield more consistent persuasive effects.

Death narratives that lacked foreshadowing were less influential perhaps because of issues of narrative completeness. Compared with other narrative conditions, death had a significantly lower NBS—completeness rating, a finding that suggests that receivers expect foreshadowing in skin cancer narratives. Narrative expectations are complex, as storytellers can garner attention by violating audience expectations, but it is also apparent that such tactics can cause backlash. In some ways, it is surprising that narrative foreshadowing proved influential, as the manipulation was relatively modest (a single sentence). Yet that

sentence seemed to conform to an unstated template in the minds of many participants. From a message design standpoint, these data suggest that communicators should consider foreshadowing character death as the standard approach unless additional data (e.g., focus group research) indicate that a particular target audience is receptive to alternative story templates. Investigating audience templates about character death, perhaps through qualitative interviews that allow participants to reveal their underlying expectations, would provide key insights for the evolution of foreshadowing research.

From a theory standpoint, the current study proposed two basic rationales for foreshadowing: preparation and interest. The results in hand showed that foreshadowing increased transportation, which is consistent with the logic of interest foreshadowing. That is, the foreshadowing condition seemed to increase how absorbed readers were in the story. However, the current study did not measure negative affect (fear, disgust, anger), which means that no evidence was gathered to test the rationale of preparation foreshadowing. Future research should measure both transportation and negative affect so that researchers can examine whether and when foreshadowing functions as preparation or interest. One promising approach is to situate future research in psychological reactance theory and use existing measures of reactance (i.e., threat to freedom and negative affect; see Dillard & Shen, 2005) to explore preparation foreshadowing.

Participants found the foreshadowed melanoma death persuasive, but researchers should be careful not to immediately generalize this finding beyond the context of SSE. The sample in the current study was composed of U.S. adults, most of whom were Caucasian. It is possible that foreshadowed death narratives resonate more with this population or that death is more effective for skin cancer prevention. For example, melanoma is a relatively aggressive cancer type that easily lends itself to powerful stories about people battling for their lives against a single unchecked mole. In fact, past research on media coverage of cancer has demonstrated that certain cancer types receive disproportionate attention—even after incidence and mortality are accounted for—likely because they better facilitate the construction of intriguing storylines (Jensen, Moriarty, Hurley, & Stryker, 2010). On a related note, future research may reveal that death narratives are received differently in situations in which the target population has a relatively high baseline fear of the threat, a situation that could trigger great identification with the survival narrative (Carcioppolo et al., 2013). Concerning the latter, researchers should consider the role of geography in reactions to skin cancer narratives. Skin cancer risk is influenced by geography (Almahroos & Kurban, 2004); therefore, it is possible that individuals from higher or lower risk areas might respond to narrative features differently. For example, individuals from higher risk areas may have higher baseline exposure to skin cancer information, and that could increase the likelihood that the information is repetitive (for more on the effects of repletion in skin cancer communication, see Shi & Smith, 2016).

Researchers should consider how character features and intersecting events moderate the impact of foreshadowed death narratives. The Doug Miller narrative at the center of the Utah Cancer Control Program colorectal cancer screening campaign featured Miller's daughter telling his story. The combination of Miller's untimely death, combined with his daughter's heartfelt expression of grief and remembrance, demonstrates how features of the character

(remorseful daughter) can intersect with death narratives to potentially enhance the narrative impact.

The current study has several limitations that should be considered as the program moves forward. The study tested narratives presented in text format only and did not examine narratives delivered through alternative media formats—such as audio or visual presentations—which may produce differing degrees of narrative transportation and believability. Nevertheless, print narratives present an opportunity to test storylines for health intervention materials before devoting resources to the development of audiovisual messages. Future research should examine how the same narratives presented in two different formats (e.g., written vs. audio recording) impact audience engagement with the messages. For example, foreshadowing in audiovisual messages can be less overt, perhaps only depicting scenes from the future without ascribing finality to those events. It is possible that foreshadowing in text formats magnifies the effect of the feature and that subsequent attempts to replicate in audiovisual formats will not find the same effect.

Although foreshadowed death narratives promoted engagement with the message in the present study, it is possible that other populations may respond differently to these types of stories. For example, for populations that are likely to avoid such stories, death-focused narratives may promote a fear control response. Future research should examine the impact of foreshadowing death in other health contexts and with different demographic groups, for example, younger populations. Foreshadowed death narratives were more influential across two melanoma storylines, but this still represents a small subset of possible storylines for a single illness. The participants were U.S. adults who primarily self-reported as Caucasian. How different cultures, races, and ethnicities respond to narratives of death—in this context and others—may vary significantly. The study did not measure participant perceptions of the manipulation check, whether the character lived or died. Whether people perceived the manipulation may be a mediator of message-outcome relationships, and it is something that should be included in future research (O’Keefe, 2003). Behavioral intention is only a proxy of actual behavior, and the measure utilized in this study had relatively low internal reliability. The construction and validation of a multi-item measure of SSE behavioral intention would facilitate continued research in this critical area. The effects were not large in this study, but researchers should be mindful that this was primarily a process-oriented study rather than an evaluation of a fully developed campaign with repeated exposure over a period of time. For example, adults 50 and older in the state of Utah saw the Doug Miller campaign an average of 28 times (Balough & Herget, 2013). Process studies identify possible features, mechanisms, and theoretical frameworks, but they are not akin to larger field trials tracking the impact of a fully developed campaign/intervention.

## Conclusion

The current study found that—compared to survivor narratives—foreshadowed death narratives increased intentions to perform SSEs, notably by increasing narrative transportation.

Given these findings, health communication professionals interested in increasing SSE to advance skin cancer control should consider utilizing foreshadowed death narratives in their campaign/intervention materials.

Death is a central event of life, and it is also a frequent focus of the stories people tell. Human beings seem to be interested in death—for real and fictional characters—a situation that supports continued study of death narratives. Whether death or survival narratives are more influential will likely vary by topic and target, but a sustained program of research has the potential to develop a generalized theory specifying the moderators and mediators to inform research and practice.

## Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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## References

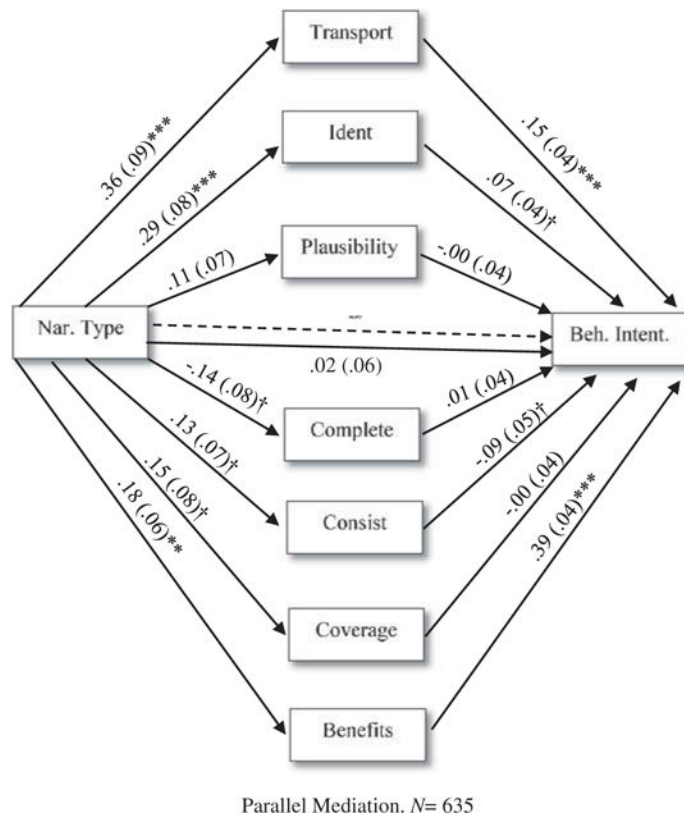
- Abbott, H. *The Cambridge introduction to narrative*. Cambridge, UK: Cambridge University Press; 2002.
- Almahroos M, Kurban AK. Ultraviolet carcinogenesis in nonmelanoma skin cancer. Part I: Incidence rates in relation to geographic locations in migrant populations. *Skinmed*. 2004; 3(1):29–35. DOI: 10.1111/j.1540-9740.2004.02331.x [PubMed: 14724410]
- Bae B, Cheong Y, Vella D. Modeling foreshadowing in narrative comprehension for sentimental readers. *Interactive Storytelling: Lecture Notes in Computer Science*. 2013; 8230:1–12. DOI: 10.1007/978-3-319-02756-2\_1
- Balough, M., Herget, K. Utah cancer screening and staging. 2013. Retrieved from <http://health.utah.gov/data/>
- Bandura A. Health promotion by social cognitive means. *Health Education & Behavior*. 2004; 31(2): 143–164. DOI: 10.1177/1090198104263660 [PubMed: 15090118]
- Berwick M, Begg CB, Fine JA, Roush GC, Barnhill RL. Screening for cutaneous melanoma by skin self-examination. *Journal of the National Cancer Institute*. 1996; 88(1):17–23. DOI: 10.1093/jnci/88.1.17 [PubMed: 8847720]
- Bilandzic H, Busselle RW. Transportation and transportability in the cultivation of genre-consistent attitudes and estimates. *Journal of Communication*. 2008; 58(3):508–529. DOI: 10.1111/j.1460-2466.2008.00397.x
- Brown, WJ. Promoting health through entertainment-education media: Theory and practice. In: Obregon, R., Waisbord, S., editors. *The handbook of global health communication*. Hoboken, NJ: Wiley; 2012. p. 121-123.
- Busselle R, Bilandzic H. Fictionality and perceived realism in experiencing stories: A model of narrative comprehension and engagement. *Communication Theory*. 2008; 18(2):255–280. DOI: 10.1111/j.1468-2885.2008.00322.x
- Carcioppolo N, Jensen JD, Wilson SR, Collins WB, Carrion M, Linnemeier G. Examining HPV threat-to-efficacy ratios in the extended parallel process model. *Health Communication*. 2013; 28(1):20–28. DOI: 10.1080/10410236.2012.719478 [PubMed: 23330855]

- Cohen J. Defining identification: A theoretical look at the identification of audiences with media characters. *Mass Communication and Society*. 2001; 4(3):245–264. DOI: 10.1207/S15327825MCS0403\_01
- Dal Cin, S., Zanna, MP., Fong, GT. Narrative persuasion and overcoming resistance. In: Knowles, ES., Linn, JA., editors. *Resistance and persuasion*. Mahwah, NJ: Erlbaum; 2002. p. 175–191.
- Dillard AJ, Fagerlin A, Cin SD, Zikmund-Fisher BJ, Ubel PA. Narratives that address affective forecasting errors reduce perceived barriers to colorectal cancer screening. *Social Science & Medicine*. 2010; 71(1):45–52. DOI: 10.1016/j.socscimed.2010.02.038 [PubMed: 20417005]
- Dillard JP, Shen LJ. On the nature of reactance and its role in persuasive health communication. *Communication Monographs*. 2005; 72(2):144–168. DOI: 10.1080/03637750500111815
- Downs, JS., Holbrook, MB., Sheng, S., Cranor, LF. Are your participants gaming the system? Screening Mechanical Turk workers. Paper presented at the SIGCHI Conference on Human Factors in Computing Systems, CHI 2010; April 10–April 15; Atlanta, GA. 2010.
- Eddens KS, Kreuter MW, Morgan JC, Beatty KE, Jasim SA, Garibay L, Jupka KA. Disparities by race and ethnicity in cancer survivor stories available on the Web. *Journal of Medical Internet Research*. 2009; 11(4):e50.doi: 10.2196/jmir.1163 [PubMed: 19945948]
- Ert E, Erev I. On the descriptive value of loss aversion in decisions under risk: Six clarifications. *Judgment & Decision Making*. 2013; 8(3):214–235.
- Goodson AG, Grossman D. Strategies for early melanoma detection: Approaches to the patient with nevi. *Journal of the American Academy of Dermatology*. 2009; 60(5):719–735. DOI: 10.1016/j.jaad.2008.10.065 [PubMed: 19389517]
- Goulart JM, Malvey J, Puig S, Martin G, Marghoob AA. Dermoscopy in skin self-examination: A useful tool for select patients. *Archives of Dermatology*. 2011; 147(1):53–58. DOI: 10.1001/archdermatol.2010.387 [PubMed: 21242394]
- Green MC. Narratives and cancer communication. *Journal of Communication*. 2006; 56:S163–S183. DOI: 10.1111/j.1460-2466.2006.00288.x
- Green MC, Brock TC. The role of transportation in the persuasiveness of public narratives. *Journal of Personality and Social Psychology*. 2000; 79(5):701–721. DOI: 10.1037/0022-3514.79.5.701 [PubMed: 11079236]
- Hamidi R, Peng D, Cockburn M. Efficacy of skin self-examination for the early detection of melanoma. *International Journal of Dermatology*. 2010; 49(2):126–134. DOI: 10.1111/j.1365-4632.2009.04268.x [PubMed: 20465635]
- Hayes, AF. PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling [White paper]. 2012. Retrieved from <http://www.afhayes.com/public/process2012.pdf>
- Hinyard LJ, Kreuter MW. Using narrative communication as a tool for health behavior change: A conceptual, theoretical, and empirical overview. *Health Education & Behavior*. 2007; 34(5):777–792. DOI: 10.1177/1090198106291963 [PubMed: 17200094]
- Hopfer S. Effects of a narrative HPV vaccination intervention aimed at reaching college women: A randomized controlled trial. *Prevention Science*. 2012; 13(2):173–182. DOI: 10.1007/s11121-011-0254-1 [PubMed: 21993613]
- Jensen, JD. Addressing health literacy in the design of health messages. In: Cho, H., editor. *Health communication message design: Theory, research, and practice*. Thousand Oaks, CA: Sage; 2012. p. 171–190.
- Jensen JD, King AJ, Carcioppolo N, Krakow M, Samadder NJ, Morgan SE. Comparing tailored and narrative worksite interventions at increasing colonoscopy adherence in adults 50–75: A randomized controlled trial. *Social Science & Medicine*. 2014; 104:31–40. DOI: 10.1016/j.socscimed.2013.12.003 [PubMed: 24581059]
- Jensen JD, Moriarty CM, Hurley RJ, Stryker JE. Making sense of cancer news coverage trends: A comparison of three comprehensive content analyses. *Journal of Health Communication*. 2010; 15(2):136–151. DOI: 10.1080/10810730903528025 [PubMed: 20390983]
- Jones CL, Jensen JD, Scherr CL, Brown NR, Christy K, Weaver J. The health belief model as an explanatory framework in communication research: Exploring parallel, serial, and moderated

- mediation. *Health Communication*. 2015; 30:566–576. DOI: 10.1080/10410236.2013.873363 [PubMed: 25010519]
- Kahneman D, Tversky A. Prospect theory: An analysis of decision under risk. *Econometrica*. 1979; 47:263–291. DOI: 10.2307/1914185
- Kreuter MW, Buskirk TD, Holmes K, Clark EM, Robinson L, Si X, Mathews K. What makes cancer survivor stories work? An empirical study among African American women. *Journal of Cancer Survivorship*. 2008; 2(1):33–44. DOI: 10.1007/s11764-007-0041-y [PubMed: 18648985]
- Kreuter MW, Green MC, Cappella JN, Slater MD, Wise ME, Storey D, Woolley S. Narrative communication in cancer prevention and control: A framework to guide research and application. *Annals of Behavioral Medicine*. 2007; 33(3):221–235. DOI: 10.1007/BF02879904 [PubMed: 17600449]
- Kreuter MW, Holmes K, Alcaraz K, Kalesan B, Rath S, Richert M, Clark EM. Comparing narrative and informational videos to increase mammography in low-income African American women. *Patient Education and Counseling*. 2010; 81(Suppl. 1):S6–S14. DOI: 10.1016/j.pec.2010.09.008 [PubMed: 21071167]
- Larkey LK, Hecht M. A model of effects of narrative as culture-centric health promotion. *Journal of Health Communication*. 2010; 15(2):114–135. DOI: 10.1080/10810730903528017 [PubMed: 20390982]
- Manne S, Lessin S. Prevalence and correlates of sun protection and skin self-examination practices among cutaneous malignant melanoma survivors. *Journal of Behavioral Medicine*. 2006; 29(5): 419–434. DOI: 10.1007/s10865-006-9064-5 [PubMed: 16855870]
- McQueen A, Kreuter MW. Women’s cognitive and affective reactions to breast cancer survivor stories: A structural equation analysis. *Patient Education and Counseling*. 2010; 81(Suppl. 1):S15–S21. DOI: 10.1016/j.pec.2010.08.015 [PubMed: 20850258]
- McQueen A, Kreuter MW, Kalesan B, Alcaraz KI. Understanding narrative effects: The impact of breast cancer survivor stories on message processing, attitudes, and beliefs among African American women. *Health Psychology*. 2011; 30(6):674–682. DOI: 10.1037/a0025395 [PubMed: 21895370]
- Miller DR, Geller AC, Wyatt SW, Halpern A, Howell JB, Cockerell C, Koh HK. Melanoma awareness and self-examination practices: Results of a United States survey. *Journal of the American Academy of Dermatology*. 1996; 34(6):962–970. DOI: 10.1016/S0190-9622(96)90273-X [PubMed: 8647989]
- Moyer-Gusé E. Toward a theory of entertainment persuasion: Explaining the persuasive effects of entertainment-education messages. *Communication Theory*. 2008; 18(3):407–425. DOI: 10.1111/comt.2008.18.issue-3
- Moyer-Gusé E, Nabi RL. Explaining the effects of narrative in an entertainment television program: Overcoming resistance to persuasion. *Human Communication Research*. 2010; 36(1):26–52. DOI: 10.1111/j.1468-2958.2009.01367.x
- Nabi RL, Moyer-Gusé E, Byrne S. All joking aside: A serious investigation into the persuasive effect of funny social issue messages. *Communication Monographs*. 2007; 74(1):29–54. DOI: 10.1080/03637750701196896
- O’Keefe DJ. Message properties, mediating states, and manipulation checks: Claims, evidence, and data analysis in experimental persuasive message effects research. *Communication Theory*. 2003; 13:251–274. DOI: 10.1111/j.1468-2885.2003.tb00292.x
- O’Keefe DJ, Jensen JD. The advantages of compliance or the disadvantage of noncompliance? A meta-analytic review of the relative persuasive effectiveness of gain-framed and loss-framed messages. *Communication Yearbook*. 2006; 30:1–43. DOI: 10.1207/s15567419cy3001\_1
- O’Keefe DJ, Jensen JD. The relative persuasiveness of gainframed loss-framed messages for encouraging disease prevention behaviors: A meta-analytic review. *Journal of Health Communication*. 2007; 12(7):623–644. DOI: 10.1080/10810730701615198 [PubMed: 17934940]
- O’Keefe DJ, Jensen JD. The relative persuasiveness of gainframed and loss-framed messages for encouraging disease detection behaviors: A meta-analytic review. *Journal of Communication*. 2009; 59(2):296–316. DOI: 10.1111/j.1460-2466.2009.01417.x



- Pennington N, Hastie R. A cognitive theory of juror decision making: The story model. *Cardozo Law Review*. 1992; 13:519–557.
- Shi J, Smith SW. The effects of fear appeal message repetition on perceived threat, perceived efficacy, and behavioral intention in the extended parallel process model. *Health Communication*. 2016; 31(3):275–286. DOI: 10.1080/10410236.2014.948145 [PubMed: 26305152]
- Shrum, LJ. Media consumption and perceptions of social reality. Effects and underlying processes. In: Bryant, J., Oliver, MB., editors. *Media effects: Advances in theory and research*. 3rd. New York, NY: Routledge; 2009. p. 50-73.
- Siegel R, Miller KD, Jemal A. Cancer statistics, 2016. *CA: A Cancer Journal for Clinicians*. 2016; 66(1):7–30. DOI: 10.3322/caac.21332 [PubMed: 26742998]
- Slater MD, Rouner D. Entertainment-education and elaboration likelihood: Understanding the processing of narrative persuasion. *Communication Theory*. 2002; 12(2):173–191. DOI: 10.1111/j.1468-2885.2002.tb00265.x
- Thompson, T., Kreuter, MW. Narrative-based health communication interventions: Using survivor stories to increase breast cancer knowledge and promote mammography. In: Kim, DK, Singhal, A., Kreps, GL., editors. *Health communication: Strategies for developing global health programs*. New York, NY: Peter Lang; 2014. p. 118-133.
- U.S. Preventive Services Task Force. Screening for skin cancer: U. S. Preventive Services Task Force recommendation statement. *Annals of Internal Medicine*. 2009; 150(3):188–193. DOI: 10.7326/0003-4819-150-3-200902030-00008 [PubMed: 19189908]
- Witte K. Fear control and danger control: A test of the extended parallel process model (EPPM). *Communication Monographs*. 1994; 61(2):113–134. DOI: 10.1080/03637759409376328
- Wouters P, van Oostendorp H, Boonekamp R, van der Spek E. The role of game discourse analysis and curiosity in creating engaging and effective serious games by implementing a back story and foreshadowing. *Interacting with Computers*. 2011; 23:329–336. DOI: 10.1016/j.intcom.2011.05.001
- Yale RN. Measuring narrative believability: Development and validation of the Narrative Believability Scale (NBS-12). *Journal of Communication*. 2013; 63(3):578–599. DOI: 10.1111/jcom.12035
- Yechiam E, Hochman G. Losses as modulators of attention: Review and analysis of the unique effects of losses over gains. *Psychological Bulletin*. 2013; 139(2):497–518. DOI: 10.1037/a0029383 [PubMed: 22823738]



**Fig. 1.** Parallel mediation model.  $N= 635$ . The dotted line depicts the total effect between narrative type and SSE behavioral intention (i.e., the  $c$  path). Transportation and SSE benefits fully mediated the relationship between narrative type and SSE behavioral intention (i.e., the  $c'$  path). For this analysis, narrative type was dummy coded (0 = survival, death; 1 = foreshadowed death). Nar. Type = narrative type; Beh. Intent. = behavioral intention; Transport = transportation; Ident = identification; Complete = completeness; Consist = Consistency; SSE = skin self-exam. † $p < .10$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

One-way ANOVAs with transportation, identification, believability, and benefits as dependent variables and narrative type as the independent variable

**Table 1**

Dependent variable	Levene's <i>F</i>	ANOVA <i>F</i>	<i>M (SD)</i>		
			Survival	Death	Foreshadowed death
Transportation	1.12	9.06***	5.21 (1.02) <sup>a</sup>	5.30 (1.10) <sup>a</sup>	5.61 (0.93) <sup>b</sup>
Identification	0.62	7.20**	4.97 (0.96) <sup>a</sup>	5.03 (0.96) <sup>a</sup>	5.29 (0.86) <sup>b</sup>
NBS—plausibility	2.32*	1.28	6.09 (0.94)	6.05 (0.86)	6.19 (0.85)
NBS—completeness	2.37*	3.49*	6.03 (0.86) <sup>a</sup>	5.87 (0.94) <sup>b</sup>	6.09 (0.89) <sup>a</sup>
NBS—consistency	1.37	2.39 <sup>†</sup>	5.89 (0.87) <sup>ab</sup>	5.78 (0.89) <sup>a</sup>	5.96 (0.82) <sup>b</sup>
NBS—coverage	2.93*	1.85	5.35 (1.13)	5.27 (1.06)	5.46 (0.97)
SSE benefits	0.89	4.54*	3.97 (0.76) <sup>a</sup>	3.93 (0.70) <sup>a</sup>	4.13 (0.64) <sup>b</sup>
SSE behavioral intentions	1.07	2.69 <sup>†</sup>	2.77 (0.83) <sup>a</sup>	2.75 (0.77) <sup>a</sup>	2.91 (0.73) <sup>b</sup>

Note. *N* = 635. Means that do not share superscripts are significantly different ( $p < .05$ ). Superscripts should be read horizontally, not vertically. For differences in means of SSE behavioral intentions, effect sizes between narrative conditions are as follows: foreshadowed death vs. survival condition ( $d = 0.18$ ) and foreshadowed death vs. death ( $d = 0.21$ ). ANOVA = analysis of variance; NBS = Narrative Believability Scale; SSE = skin self-exam.

<sup>†</sup>  $p < .10$ .

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .

**Table 2**

One-way ANOVAs with transportation, identification, believability, and benefits as dependent variables and narrative character as the independent variable

Dependent variable	ANOVA <i>F</i>	<i>M (SD)</i>	
		Rusty	Diane
Transportation	2.62	5.31 (1.04)	5.44 (1.02)
Identification	0.55	5.13 (0.93)	5.07 (0.95)
NBS—plausibility	15.11 ***	5.97 (0.97) <sup>a</sup>	6.24 (0.78) <sup>b</sup>
NBS—completeness	1.46	5.96 (0.84)	6.04 (0.95)
NBS—consistency	4.80 *	5.80 (0.86) <sup>a</sup>	5.95 (0.86) <sup>b</sup>
NBS—coverage	4.41 *	5.28 (1.09) <sup>a</sup>	5.45 (1.02) <sup>b</sup>
SSE benefits	0.01	4.01 (0.67)	4.01 (0.73)
SSE behavioral intentions	0.01	2.81 (0.76)	2.81 (0.80)

*Note.* *N* = 635. Means that do not share superscripts are significantly different ( $p < .05$ ). Superscripts should be read horizontally, not vertically. ANOVA = analysis of variance; NBS = Narrative Believability Scale; SSE = skin self-exam.

\*  $p < .05$ .

\*\*\*  $p < .001$ .

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