

REGISTERED REPORT

Exploring Mechanisms of Narrative Persuasion in a News Context: The Role of Narrative Structure, Perceived Similarity, Stigma, and Affect in Changing Attitudes

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Two exploratory studies demonstrate, for the first time, that narrative persuasion can diminish the stigma attached to social groups featured in journalistic narratives. Study 1 shows narrative format improves stigma toward Syrian refugees indirectly through narrative engagement, perceived similarity, and meaningful affect. Decreases in stigma also improved attitudes toward refugees. Study 2 replicates these findings against a separate participant pool, an additional story topic, and compares changes in engagement, stigma, and attitude to a non-narrative fact sheet and a control condition. A preregistered third study seeks to validate the finding that narratives can elicit destigmatization and disentangle the roles of story exemplars from story structure.

Keywords: Narrative persuasion; refugees; stigma; attitude; journalism

Although refugees resettled in the United States have undergone the most stringent security and background checks of any traveler (Ardalan, 2017), federal legislative and executive bodies have attempted to bar refugees from entering the country on the grounds refugees pose a threat (Barnes, 2017; Collins et al., 2016). The Trump administration has been especially restrictive on immigration policy generally and refugee resettlement in particular despite the prior administration's pledge to take in additional Syrian refugees as the Syrian Civil War escalated (Ostrand, 2015). In the first of several unilateral actions to bar refugees from entrance to the United States, the current administration first issued an executive order in January 2017 that temporarily suspended the refugee resettlement program, lowered the number of refugees admitted to the U.S. annually from 110,000 to 50,000, indefinitely suspended the entry of Syrian refugees, and banned citizens from several countries—including Syria—from entering the United States (Exec. Order No. 13769, 2017). The first order resulted in widespread protests in U.S. cities, e.g. New York City (Rosenberg, 2017), Atlanta (Gehlbach, 2017), Raleigh-Durham (Grinberg & Park, 2017), and Portland (Brosseau, 2017). The second executive order, issued in March 2017, replaced the first but removed the permanent ban on Syrian refugees and allowed citizens of the banned countries who also hold U.S. citizenship to enter the United States (Exec. Order No. 13780, 2017). In

September 2017, Trump issued Presidential Proclamation 9645 (2017) that expanded the list of countries whose citizens were barred from entry and, importantly, made the travel bans permanent. Finally, a memorandum for the Secretary of State further lowered the number of refugees to be allowed entry for the 2018 fiscal year to 45,000 (Presid. Determination 2017–13, 2017), the lowest number of refugees admitted since 1980, the same year the U.S. passed the Refugee Act of 1980 (Cepla, 2018). As of this writing, Syrians are still barred from entering the United States despite overwhelming evidence that refugees pose little threat to natives. Independent, non-partisan analyses indicate that fatal terroristic attacks in the United States are almost universally the product of domestic radicalization (Bergen, Ford, Sims, & Sterman, n.d.) and that the odds of being killed by such an attack are exceedingly low—about 1 in 3.64 billion (Nowrasteh, 2016). The average American is several times more likely to be struck by lightning in a given year—a 1 in 8.98 million chance (Insurance Information Institute, 2018)—than to be killed by a refugee.

Using the state apparatus to curtail legal immigration has ramifications beyond merely denying entry to individuals since such institutional practices and policies more broadly implicate popular conceptions of immigrants and refugees.¹ Kundnani (2001) examines how over the course of several years the asylum application screening mechanisms in the United Kingdom were made more stringent in an effort to “solve” the refugee problem; this process cultivates popular racism by increasing the difficulty of completing a successful asylum application, which in turn results in an increase in asylum denials, which politicians can then

use as evidence that asylum seekers are merely illegal immigrants. This creates “an open wound through which racism has reinfected the body politic, combining with and reinforcing other forms of popular racism” (Kundnani, 2001, p. 43). This phenomenon is not limited to the U.K. and has played out domestically in the U.S. more overtly in the wake of the 2015 Paris terrorist attacks. In the months following the attacks, 36 state governors in the United States made public statements regarding refugee resettlement policy, 31 of whom portrayed refugees as villains in their policy narratives (Pope, 2017), which created a “state of exception” where the normal laws and procedures governing refugee resettlement were suspended (see Agamben, 2005). According to Pope’s analysis, these governors stated they would either openly defy the Obama administration in resettling refugees or decline to participate in the resettlement program, constructing Syrian refugees fleeing violence and persecution as “villains to be feared—devoid of humanity” (Pope, 2017, p. 66). Although the governors sought to restrict Syrian refugees resettlement in particular, their public policy narratives may be responding to or reinforcing racism more broadly as the rate of asylum application denials is increasing even as applications saw a surge in the 2017 fiscal year—30,179 compared to 22,312 in 2016 (Transactional Records Access Clearinghouse, 2017).

Given that refugees are stigmatized by the current U.S. government administration, our study seeks to contribute to extant work on the effect of narratives, journalistic or otherwise, on perceptions of social groups. Primarily, we wish to examine whether narrative persuasion can indeed influence perceptions of stigma attached to a social group. Despite the breadth of research on narrative persuasion, there has been no work to date that has explicitly integrated stigma into a theoretical framework for narrative persuasion. Also, while researchers have examined narrative persuasion in a variety of contexts ranging from radio news pilots (Batson et al., 1997) to cautionary tales (Hamby & Brinberg, 2016), there is scant attention paid to the quality and structure of narrative storytelling independently from story content in this body of work. We begin to disentangle the effect of narrative structure from story content in our second and third studies. We examine narrative persuasion within a journalistic context as news stories frequently use human interest, vivid imagery, and concrete description in their reporting (Brooks, Kennedy, Moen, & Ranly, 2014; Landon & Stephens, 2008; McKane, 2014; Mencher, 2011; Scanlan & Craig, 2014)—key components of an engaging narrative.

Literature Review

The study of the means by which narratives can influence attitudes and perceptions has enjoyed a wealth of attention over the last several decades, including research on narrative education (Brusse, Franssen, & Smit, 2016; Slater, 2002; Slater & Rouner, 2002), narrative impact (Green & Brock, 2002), entertainment persuasion (Moyer-Gusé, 2008), and narrative persuasion (Appel & Maleckar, 2012; Carpenter & Green, 2012; Green, 2008; Hamby, Brinberg, & Daniloski, 2015; Hoeken & Flikkers, 2014; Robinson &

Knobloch-Westerwick, 2017). Importantly, the narrative persuasion effect has been shown to not only improve attitudes toward the stigmatized individual featured in the story, but also toward the stigmatized group as well (Batson et al., 1997), indicating that narratives told about or through the perspective of one individual can elicit attitudes that are then applied to the larger social group.

There is some evidence to show that narrative persuasion can occur across an assortment of stigmatized groups through several content formats: Batson et al. (1997) was able to show this effect for people living with AIDS, the homeless, and murderers by having participants listen to radio show pilots and saw an improvement in an attitude measure; Oliver, Dillard, Bae, and Tamul (2012) found the same effect with a similar outcome for inmates, the elderly, and immigrants after participants read short news stories; Bartsch, Oliver, Nitsch, and Scherr (2016) showed television spots can improve attitudes toward people with disabilities and that these effects were enhanced with emotionally arousing music. While each of these studies individually provides some evidence that narratives can impact perceptions of social groups, none measured stigma per se, a critical shortfall in the literature.

In the following section we establish a theoretical rationale to support the notion that narrative persuasion can serve to reduce stigma. We first outline the theoretical mechanisms of narrative persuasion and pay particular attention to narrative engagement as a first order outcome. Then we delineate between the primary focus of narrative persuasion scholars—attitude—and stigma. We then provide an overview of stigma reduction theory and highlight two important mechanisms for stigma reduction—increasing perceived similarity with and empathy for the stigmatized. Finally, we will argue that both stigma reduction mechanisms (similarity and empathy) are likely outcomes of the narrative persuasion process generally and narrative engagement in particular.

Theoretical Mechanisms in Narrative Persuasion Theory

Researchers have begun to probe the ways in which narratives can alter the perceptions of individuals or groups such as increasing perceived similarity with the characters (de Graaf, 2014), evoking affective reactions (Oliver et al., 2012), and experiencing transportation (Green & Brock, 2002). Our focus in this study is on how storytelling ultimately results in story-consistent attitudes by first eliciting narrative engagement. Busselle and Bilandzic (2009) conceptualize narrative engagement as a multidimensional construct that involves four dimensions: Narrative understanding, attentional focus, emotional engagement, and narrative presence. They define narrative understanding as the difficulty with which readers generate meaning from the narrative. More engaging narratives are more easily understood and readers experience understanding through a lack of difficulty comprehending the story. Attentional focus is the degree to which readers are exclusively thinking of the narrative world. Emotional engagement involves “feeling for and with characters,” (Busselle & Bilandzic, 2009, p. 341), similar to both sympathy and empathy. Narrative presence is the

perception that readers have become immersed into the narrative world and left their own behind. Ultimately, the authors hypothesized narrative engagement will elicit story consistent attitudes (Busselle & Bilandzic, 2009).

Although experiencing a narrative may have several possible outcomes such as retrospective reflection (Hamby, Brinberg, & Daniloski, 2017; Hamby, Brinberg, & Jaccard, 2016) or transportation (Green, 2004, 2007; Green & Brock, 2000), we focus on narrative engagement here because it explicitly measures both immersion into a story and emotional reactions. It is our contention that narrative engagement, as a first order outcome of experiencing a narrative, is a promising staging point for examining how narratives can reduce stigma because the construct accounts for both cognitive immersion into the story world (narrative presence) and affective reactions to characters (emotional engagement). While both processes are integral to narrative persuasion, we will argue in the next section similar cognitive and affective processes have been shown to effectively reduce stigma outside of a narrative context.

Integrating Narrative Persuasion and Stigma Reduction Theories

Before linking narrative persuasion and stigma reduction theories, it would be prudent to delineate between attitude—a key outcome for narrative persuasion scholars—and stigma because narrative persuasion scholarship has yet to demonstrate that experiencing a narrative diminishes the stigma associated with the social groups under study. Much narrative persuasion work has focused on attitude toward a stigmatized group and while stigma and attitude are undoubtedly correlated, they are separate theoretical constructs. Attitude can be thought of as a “person’s general evaluation of an object” (O’Keefe, 2002, p. 6), a “convenient summary of a wide variety of beliefs” (Petty & Cacioppo, 1981, p. 8), or “learned cognitive, affective, and behavioral predispositions” toward an object, (Aiken, 2002, p. 3). Conversely, stigma is defined as a socially ascribed and identifiable attribute of an individual that is deeply discrediting (Goffman, 1974) and based in stereotype (Ashmore & Del Boca, 1981) that serves to socially isolate the individual (R. A. Smith, 2007). Perceiving an individual as stigmatized then can therefore shift our cognitive, affective, and behavioral inclinations—attitudes—to be unfavorable compared to a non-stigmatized individual. That said, we do not mean to argue that there is necessarily a unidirectional relationship between these two theoretical concepts and it is entirely possible that shifts in attitude would necessitate changes to stigma through mechanisms such as cognitive dissonance via direct messaging (e.g. Cioa & Latner, 2012) or possibly behavior changes (Devine, Plant, & Harrison, 1999).

This distinction between attitude and stigma is also practically important since stigma is particularly pernicious: stigmatized individuals will be seen as socially deviant and therefore deserving prejudicial judgement (Dovidio, Major, & Crocker, 2000) and are likely to experience greater amounts of stress when interacting with others (Goffman, 1974), report low self-esteem (Murakami & Latner, 2015), have diminished social networks of support (R. A. Smith,

2011), and experience discrimination (Brockington, Hall, Levings, & Murphy, 1993; Link, Cullen, Frank, & Wozniak, 1987). Reducing stigma attached to a social group, therefore, can have wide ranging effects on individuals’ quality of life.

Stigma reduction and empathy

Work on stigma has shown contact, advocacy, protest, and education can reduce perceived stigma within the narrowly defined confines of physical illnesses and mental illness (Heijnders & van der Meij, 2006). Such stigmas are what Goffman (1974) would term blemishes of the body or of individual character and can be reduced through efforts to generate intergroup contact (Michaels et al., 2014). The present work deals more with race, nationality, and religion—forms of tribal stigma that draw measures of discrimination and discriminatory behavior from “normals,” that can also be reduced through interpersonal contact (see Pettigrew & Tropp, 2000).² Such contact can also increase support for public policy designed to rectify racial injustices (Dixon et al., 2010) and reduce implicit bias toward minorities (Brannon & Walton, 2013)—albeit with some limitations (see Denis, 2015).

The notion that inter-group contact can reduce hostility and prejudice is not new. Allport (1954) first proposed the contact hypothesis and it has since generated a wealth of research (Dovidio, Gaertner, & Kawakami, 2003) that has found that empathy is a key mediator in bias reduction. Empathy is perhaps best defined as “an affective response stemming from the apprehension or comprehension of another’s emotional state or condition and is similar to what the other person is feeling or would be expected to feel in the given situation” (Eisenberg, Spinrad, & Sadovsky, 2006, p. 518). Empathy goes beyond relatedness as it is “feeling connected to and cared about by others” (Ryan, Huta, & Deci, 2008, p. 153) and compared to sympathy, empathy is also a better mediator in narrative persuasion models (Wirtz, Sar, & Duff, 2016). Insofar as stigma reduction is concerned, experiencing empathy toward stigmatized groups can potentially decrease negative affective reactions to a stigmatized group or increase positive reactions (see Pettigrew & Tropp, 2000).

As previously stated, we place narrative engagement as the first order outcome of experiencing a narrative (see Busselle & Bilandzic, 2009). Bilandzic and Busselle (2013) argue that one outcome of such engagement is empathizing with the story character, which in turn leads to persuasive outcomes (see Busselle & Bilandzic, 2009; Green & Brock, 2000, 2002). By drawing on stigma reduction theory, we also contend that empathic reactions with story characters can reduce stigma directly and through empathic affect much in the same way that interpersonal contact can reduce stigma. Recent work on eudaimonic or meaningful affect demonstrates that media can trigger feelings of being touched, moved, and inspired, with these feelings associated with heightened experiences of compassion and understanding (Bailey & Wojdyski, 2015; E. L. Cohen, 2016; Oliver & Raney, 2011; Wirth, Hofer, & Schramm, 2012). Such empathically-derived affective states, we reason, will serve to reduce stigma and improve attitudes

toward the broader social group. We also expect that empathy elicited for an individual of a stigmatized group will directly improve attitudes (Batson et al., 1997; Clore, K. M. Jeffery; Finlay & Stephan, 2000).

Stigma reduction and perceived similarity

Given that stigmatization involves perceptions of intergroup differences and avoidance of stigmatized groups, heightening perceived similarity plays an important mechanism in the destigmatization process (Brewer & Miller, 1984; Miller & Brewer, 1986; R. A. Smith, 2007). We argue news narratives may offer a form of mediated contact and are thus promising venues for narrative persuasion as they have the potential to bypass the typical strategies people may employ in stigma avoidance. Indeed, moving media experiences have been shown to elicit feelings of greater connection to other racial or ethnic groups (Oliver et al., 2015). Such exposure may thereby provide those Goffman (1974) terms “normals” an opportunity to engage in the perspective taking afforded in the narrative persuasion process via narrative engagement (see Busselle & Bilandzic, 2009). Mere perspective taking into a black body outside of a narrative context can reduce bias toward minorities (Maister, Sebanz, Knoblich, & Tsakiris, 2013; Peck, Seinfeld, Aglioti, & Slater, 2013).³ We propose narratives offer similar—if not greater—affordances for perspective taking via narrative engagement and thereby may serve as an untapped and unexamined method of destigmatization.

As such, media messages—particularly narrative messages—should be particularly well suited to heighten perceived similarity via the process of narrative engagement generally and through narrative presence specifically. In conceptualizing narrative engagement, (Busselle & Bilandzic, 2009) drew from work on flow experiences or absorbing tasks (see Csikszentmihalyi, 1997; Csikszentmihalyi, 1990), and transportation (Green & Brock, 2000, 2002; Green, Brock, & Kaufman, 2004), defined as a “distinct mental process, an integrative melding of attention, imagery, and feelings” (Green & Brock, 2002, p. 701). A related theory, the extended elaboration likelihood model (E-ELM, M. D. Slater, & Rouner, 2002), posits narrative persuasion occurs through the dual processes of absorption, “vicariously experiencing the character’s emotions and personality” and identification, perceiving characters in the story as “similar or at least as a person with whom they might have a social relationship” (Slater & Rouner, 2002, p. 178). The takeaway here is that there is broad support in the field of narrative persuasion for the notion that perspective taking is a key component of such persuasion, whether it is conceptualized as a process that functions through narrative engagement, transportation, or the E-ELM’s absorption and identification.

This absorption is critical as it can alter perceptions of story characters by making them seem less different. Bilandzic and Busselle (2013) argue audiences vicariously experience the protagonist’s lived experience in a process not dissimilar from social learning (see Bandura, 1986) where characters “learn” the perspective of the stigmatized individual through vicarious experience, moving the character’s world closer to their own (Busselle & Bilandzic, 2008; Green & Brock, 2000). By simulating the narrative

world in their minds, audiences immerse themselves into the character’s perspective and at least temporarily adopt the desires and motivations of characters, experiencing their challenges, successes, and failures as their own (Busselle & Bilandzic, 2008). Furthermore, identifying with the characters in the story (see J. Cohen, 2001) helps build a greater understanding of the character in a complex narrative world (Mar & Oatley, 2008). Encouragingly, featuring stigmatized protagonists in stimulus material does not preclude perspective taking from audiences and can still serve as “a means to encourage social acceptance by increasing perceptions of similarity, increasing social attraction, and decreasing social distance for highly stigmatized protagonists” (Chung & Slater, 2013, p. 905).

In addition to perceived similarity indirectly affecting attitude through stigma, extant work also shows that such perceptions can increase interpersonal attraction directly (Byrne, 1971; Byrne, Baskett, & Hodges, 1971; Montoya, Horton, & Kirchner, 2008; Tan & Singh, 2007). Interpersonal attraction, which could be described as the degree to which we like others (see McCroskey, Larsen, & Knapp, 1971; McCroskey & McCain, 1972), also bears on assessments of attitude toward the individual or group (Batson et al., 1997) as research concerned with interpersonal attraction is often done with variables that are interrelated with attitude (Berscheid & Walster, 1969). Therefore, in addition to expecting that perceived similarity can drive most positive attitudes toward characters via stigma, we also contend that similarity can directly implicate audiences’ attitudes.

Narrative, Story, and Plot

A secondary goal of our work is to examine how specific textual features impact the degree to which narratives elicit persuasive outcomes. Not all texts are narratives and narrative is not equivalent to story or plot. Many narrative persuasion scholars treat narrative, story, and plot interchangeably, but this has created some muddling of what characteristics of a narrative elicit a narrative persuasion effect. Here, we provide a brief overview of literary structuralism or narratology, which is concerned with identifying and understanding the essential components of a narrative text (Chatman, 1978) rather than the content of particular literary works.

It would be best to begin with clearly defining what constitutes a narrative—the typical stimulus employed by narrative persuasion scholars. Abbott (2002) defines narratives as representations of events, an encompassing view; Copley (2014) stipulates that narratives are representations of events and that includes the manner in which the representation takes place as part of narrative—what (Chatman, 1978) would call discourse.⁴ Prince (2008) offers an even narrower conceptualization, which is our preferred understanding of narrative. Prince argues a narrative is “the logically consistent representation of at least two asynchronous events that do not presuppose or imply one another” (p. 19). The key differences here are that the text must be coherent to readers and that one event cannot be fully dependent on the other having occurred. For Prince, a narrative text implies or states a connection between events above and beyond their

natural relationship. A minimalist description of Frank coming home from work and going to bed early is not a narrative since in order for Frank to go to bed early he must have returned from work. However, Frank coming home from work and going to bed early because he felt ill could be considered a minimalist narrative because it is a logical representation of two temporally separated events that are described in such a way as to show their relation to one another. Importantly, Prince also argues that texts are perhaps better classified along a continuum of “narrativity” ranging from non-narrative to narrative rather than as dichotomously belonging to either narrative or non-narrative classifications. Our minimalist description of events employed here is technically a narrative but only just. Setting Frank and his illness aside, we could also argue that structural features of a text can alter its narrativity. For example, illogically arranged narratives are less of a narrative than those that are coherently structured. Additionally, a text that describes how to accomplish a task from start to finish might be closer to a narrative than a collection of factual information on a topic. For narrative persuasion scholars, thinking of texts as existing on a continuum of narrativity may be helpful for probing narratives themselves to understand which attributes spur outcomes such as narrative engagement.

Drawing on this work to inform our investigation of narrative persuasion in news narratives, we define key structural components of narrative texts that have largely gone unaddressed in the narrative persuasion literature. Structuralists or narratologists would argue narrative texts are fundamentally composed of story and discourse (Chatman, 1978) and we will address each in turn. The story includes several components that are depicted or described to readers: existents, which are characters and the settings in which they find themselves, and events (Chatman, 1978). In communicating these story elements to audiences, they must be selected, arranged, and presented to the reader into a sequence called the plot (Prince, 1987). Plot can also be defined as the justification for how and why story elements are described, arranged, and their relationship to one another (Copley, 2014) or how readers “become aware of what happened” (Chatman, 1978, p. 20). For example, a description of Frank feeling ill, leaving work early, skipping dinner, and going to bed at 6 p.m. are necessarily arranged into a sequence and depicted or described to the reader. The story elements do not change if the plot is altered in order to read that the sick character went to bed at 6 p.m. after leaving work early and skipping dinner. The happenings are identical although the sequence of the plot is not. That said, the linkage between the events (the character’s illness) remains the same. Discourse on the other hand does not deal with what story elements are conveyed to the audience or in what order they are communicated. Rather, discourse is the manner in which those elements are delivered (Prince, 1987) through an “expression plane” (Chatman, 1978, p. 146) that, for example, considers the narrator’s voice or whether there is a narrator at all, the reader’s point of view, and commentary from the author on events.

Much of the work on narrative persuasion examines how manipulations of story elements such as character

depictions—altering the degree to which they are stigmatized (Chung & Slater, 2013), making characters more likeable (Robinson & Knobloch-Westerwick, 2017), having a character make an admission of responsibility (Niederdeppe, Shapiro, Kim, Bartolo, & Porticella, 2014), portraying characters as more similar to audiences (de Graaf, 2014), having characters consume alcohol to alter perceived similarity (Andsager, Bemker, Choi, & Torwel, 2006), and changing the climax of a retelling from murder to a laughing fit (Green & Brock, 2000). Certainly, this corpus of work has illuminated how story events and their causal interconnections can shape perceptions and attitudes and we do not mean to imply that manipulations dealing with story and plot have not been fruitful. Focusing on alterations to story features, however, limits our understanding of narrative persuasion to specific story elements, rather than the narrative as a structure for conveying happenings.

These alterations to the content of a text can be contrasted with manipulations of the narrative’s discourse, which involve changing how a retelling is constructed such as altering the quality of writing (Donahue & Green, 2016), story perspective (Hoeken, Kolthoff, & Sanders, 2016), and character emphasis (Oliver et al., 2012). These manipulations, however, can conflate multiple components of narratives. For instance, Oliver et al. (2012) sought to alter character emphasis by using a single public policy issue—health care—but had the story told from the perspective of either experts or people with first-hand experience. To keep expository information consistent between conditions, the researchers took the information from the first-person account and buried it in the middle of the expert account. The inverse was done for the first-person text. This manipulation conflates two components of the narrative: story sequence (plot) and character emphasis, which might be more accurately described as story perspective—a change to discourse.

Bringing the structuralist perspective into the mix affords us the opportunity to isolate a structural component of narrative and manipulate it to increase or decrease its narrativeness, which we begin to address in our second study. Specifically, we aim to understand how the coherence of the news narrative’s plot can impact the degree to which readers find a story narratively engaging. As we have argued, we then expect such engagement to indirectly alter stigma through perceptions of perceived similarity and empathic affect.

The Difficulty of Establishing Mediation

As we stated earlier, our purpose in this study is to provide evidence that the narrative persuasion process can indeed influence perceptions of stigma and not merely attitude. We have built a theoretical rationale for integrating both the bodies of stigma and narrative persuasion research, but our present work can only lay the groundwork for future scholarship to determine whether this set of interrelationships is genuine and not spurious. Bullock, Green, and Ha (2010) provide a comprehensive overview of the challenges of mediation as it is presently understood, but in summary, building a strong case for mediation necessitates first creating manipulations that can affect solely mediators and nothing else in an effort to

rule out alternative explanations for the observed indirect effect. As Bullock et al. (2010) points out, this requires painstaking piloting and validation. We only aim for our efforts here to lay the groundwork for future scholarship to more definitively build the case for similarity, affect, and stigma to serve as mediators within a narrative persuasion framework.

Pilot Work

This registered report contains two pilot studies that, while theoretically driven, deviated from the planned analysis as our original screening criteria were too strict and we opted to use unidimensional scales for two key concepts (narrative engagement and stigma) where we originally planned to use them as multidimensional constructs, thus necessitating a respecification of our original path model. Therefore, study 1 and study 2 should be treated as exploratory and drawn upon with caution until the findings are validated.

Study 1

In our initial examination of the role of stigma in the narrative persuasion process, we expected the narrative story format to elicit higher levels of narrative engagement, but respecified the structure of the model among perceived similarity, stigma, and meaningful affect. We report on our exploratory analysis here.

All stimuli, measures, participant data, SPSS syntax, and expanded analyses can be found on the Open Science Framework (osf.io/y6vt2).

Method

Procedure

In the fall of 2016 we recruited participants from Amazon's Mechanical Turk. We employed a two condition between-subjects experimental design with random assignment to conditions. Participants were assigned to either a narrative or non-narrative condition similar to Oliver et al. (2012). After accessing the study from their MTurk accounts, participants indicated their acceptance of the consent form and then filled out several basic demographic and background items (age, sex, race, empathic tendencies, and political ideology). Participants were then exposed to one of two versions of the story (narrative or non-narrative). Then, they filled out measures for affect, narrative engagement, transportation, perceived stigma, attitude toward Syrian refugees, and their behavioral intentions to help Syrian refugees. The demographics, empathic tendencies, transportation, and behavioral intentions were not used in this exploratory analysis. The study protocol was approved by the first author's institutional review board (IRB protocol number 16-799) and participants were compensated with \$.30.

Stimulus materials

Past work, e.g. Oliver et al. (2012), manipulated what they termed "story format" to vary the emphasis on actors in the story. In this study, the manipulation was executed similarly by providing richer detail about the refugee

at the beginning and end of the story in the narrative format condition. The non-narrative format provided the same information but with less vivid imagery and placed this information in the middle of the story. A trained journalist, the first author for this paper, wrote the text for both conditions, both of which were about the same length—between 520 and 532 words. The story features a Syrian pharmacist who had fled violence in his home country after one of his children was killed in a bombing.

Participants

While we could have forced participants to stay with the stimulus material for a certain amount of time, letting participants freely spend as much or as little time with the news story is a closer approximation of how similar materials would be consumed outside of an experimental setting. We collected data from 228 participants. Three participants did not fill out any outcome variable measures and were removed from the data. We screened the remaining participants based on the time spent with the stimulus materials to ensure that they had spent a reasonable amount of time with the story. Participants who spent between 45 and 300 seconds with the stimulus materials were retained for data analysis. This was enough time to quickly read the stimulus materials while also affording participants the opportunity to spend a significant amount of time with the stories. Rather than weeding out all but the most engaged participants, we thought the liberal low and high end of the screening procedure would increase the external validity of the study as people do not always fully attend to the content they are reading. We retained 159 participants (58.6% female) with an age range of 18 to 79 ($M = 22.16$, $SD = 14.26$). The screening procedure resulted in 83 participants in the narrative condition and 76 participants in the non-narrative condition.

Measures

Descriptives and scale correlations for all measures can be found in **Table 1a** and **1b** displays descriptives by experimental condition. Unless otherwise stipulated, all measures employed rating scales ranging from 1 to 7.

Narrative engagement

We employed Busselle and Bilandzic's (2009) narrative engagement scale in this study, which conceptualizes engagement as a multidimensional construct composed of attentional focus, narrative understanding, narrative presence, and emotional engagement. Attentional focus and narrative understanding items were reverse coded so that higher values indicate greater levels of narrative engagement. In analysis, we used the scale as an indicator of overall narrative engagement rather than as a multidimensional construct (see Busselle & Bilandzic, 2009). The scale had an acceptable Cronbach's alpha ($\alpha = .77$).⁵

Stigma

We used the stigma scale developed by Corrigan, Markowitz, Watson, Rowan, and Kubiak (2003), which consists of personal responsibility beliefs, pity, anger, fear,

Table 1a: Descriptives and Correlations, Study 1.

	1	2	3	4	5	6
<i>N</i>	159	159	159	159	159	159
<i>M</i>	4.92	4.56	3.86	2.41	4.39	126.9
<i>SD</i>	0.87	1.57	1.8	1.08	1.72	49.89
1. Narrative engagement	1					
2. Meaningful affect	.69*	1				
3. Homophily	.37*	.51*	1			
4. Stigma	-.58*	-.64*	-.56*	1		
5. Attitude	.52*	.69*	.72*	-.74*	1	
6. Time with stimulus	0.08	-0.01	-0.15	-0.05	-0.06	1

Note: * $p < .001$.

Table 1b: Descriptives by Condition, Study 1.

	Narrative <i>n</i> = 83 <i>M</i> (<i>SD</i>)	Non-Nar. <i>n</i> = 76 <i>M</i> (<i>SD</i>)
Nar. Engagement	5.05(0.92)	4.78(0.78)
Affect	4.63(1.58)	4.47(1.56)
Homophily	3.91(1.76)	3.81(1.85)
Stigma	2.38(1.03)	2.44(1.13)
Attitude	4.36(1.82)	4.42(1.61)
Time	130.51(45.65)	122.89(54.16)

Note: Times are displayed as seconds.

helping, and coercion-segregation. The pity and helping scales were reverse coded such that higher scores indicate higher degrees of stigma. Like the narrative engagement scale, we were interested in measuring the overall stigma attached to social groups in this study. As such, we first created subscales identically to Corrigan et al.'s (2003) operationalization of stigma, which are sufficiently reliable when treated as individual items ($\alpha = .89$). Then these subscales were averaged together to create the overall stigma measure.

Perceived similarity

The scale we employed was adapted from McCroskey, Richmond, and Daly (1975) and asked participants to rate their agreement with the following statements: "Refugees think like me," "Refugees act like me," "Refugees are similar to me," "Refugees are like me," and "Refugees behave like me." The five items were used as a single scale ($\alpha = .97$).

Affect

We asked participants to rate the degree to which they experienced a range of emotions while reading each of the stories (tender, inspired, warm, compassionate, joyful, touched, aggravated, mellow, soft-hearted, guilty, happy, sympathetic, moved, and sad). We conducted an exploratory

factor analyses to construct our affect scale. The analysis employed principal axis factoring with promax rotation, eliminating items with low communalities i.e. less than .30. Then we assessed the pattern matrix for factor loadings and retained items for the final factor structure that loaded higher than .60 and that did not cross load greater than .40. Items on the resulting scales were created by averaging items together. The analysis eliminated three items with low communalities (aggravated, guilty, and mellow) and two items for cross loading on more than on factor (warm and inspired). The remaining items converged into a two factor solution that accounted for 80.97% of the variance. The first factor, which we took to indicate meaningful eudaimonic affect, consisted of seven items: sad, sympathetic, compassionate, moved, soft-hearted, touched, and tender ($\alpha = .95$). No items were reverse coded. The second factor we named positive affect and consisted of joyful and happy. Positive affect was not used in subsequent analyses.

Attitude

Participant attitudes toward refugees was measured with five Likert-type items averaged together ($\alpha = .97$) adapted from Batson et al. (1997). Items included "I care a great deal about helping refugees," "In general, I feel positively toward refugees," and "Our society should do more to protect the welfare of refugees."

Results

We used multiple analysis of variance tests to examine the main effect of narrative format on the dependent variables (narrative engagement, stigma, perceived similarity, meaningful affect, and attitude). None of these individual tests resulted in a direct main effect on any outcomes (see **Table 2**).

To examine the relationship between narrative format, narrative engagement, and the second order outcomes, we built a path analysis using narrative condition as the exogenous variable, which was coded such that 0 = non-narrative format and 1 = Narrative format. Attitude toward refugees was used as the outcome variable. We

specified that narrative engagement would predict perceived similarity, meaningful affect, and stigma. Error terms between the meaningful affect and perceived similarity variables were allowed to covary. Stigma was also predicted by meaningful affect and perceived similarity. The model resulted in an acceptable fit to the model $\chi^2(5) = 2.94, p = .709, CFI = 1.00, RMSEA < .001, 90\% CI [.000, .083], pclose = .845$ (see **Figure 1**), and indicates a weak relationship between narrative format and narrative engagement. We also conducted an indirect effects test using tracing rules to calculate standardized effects and 5,000 bootstrapped samples to construct bias corrected 95% confidence intervals for standard errors to estimate significance levels. We found a significant indirect total effect of narrative on attitude ($\beta = .08, p = .042$). We also estimated the standardized indirect effect of condition on attitude through narrative engagement and then individually through each of the second order

effect variables using tracing rules and found that there is a significant indirect effect through meaningful affect ($\beta = .03, p = .025$), perceived similarity ($\beta = .02, p = .025$), and stigma ($\beta = .03, p = .035$). Both indirect effects tests are marginally significant and given that if the effect were real, p values of this size should be rare (see Lakens, 2014; Sellke, Bayarri, & Berger, 2001). Therefore, these findings should be, at best, drawn upon cautiously as the null hypothesis may very well be true.

Discussion

Our first study provides preliminary evidence that narrative engagement is indirectly related to attitude via meaningful affect, stigma, and perceived similarity. Our exploratory path analysis also indicated that perceived stigma is driven by narrative engagement, meaningful affect, and perceived similarity. Most importantly, this analysis indicates support for the notion that not only can narrative

persuasion elicit attitude change, but that this change is driven in part by stigma reduction.

The first study leaves several questions unanswered that we address in study 2. First, because all subjects were presented with stories about Syrian refugees, we cannot assess whether levels of stigma were changed from baseline, which would have required an additional condition where participants were exposed to a separate topic. Second, our narrative format manipulation altered both story structure and character emphasis in our attempt to create a news account that was more narratively engaging, conflating story and discourse. By doing so, it is unclear which of the two may be driving levels of narrative engagement. Past work has contended emphasizing story characters at the beginning and end of a story—compared to being described in the middle of a story and with fewer words—affords audiences the opportunity to emotionally engage with a character and perspective take into a character's lived experience, resulting in greater persuasive outcomes (e.g. Oliver et al., 2012). However, character emphasis is a discourse element for narratology scholars while story structure could be defined as an element of plot (Coble, 2014), which from a structuralist perspective, muddles whether one or both are integral to narrative persuasion. Media practitioners and advocates would both benefit from a more precise understanding of whether plot (the order of story elements) or character emphasis are really at play here.

Thus our second study will investigate whether merely altering narrative structure can elicit similar effects on outcome variables to establish that story structure or plot is not inconsequential. Finally, while past research has provided ample evidence to indicate that narratives are more influential on attitudes than non-narrative formats (e.g. Oliver et al., 2012), we do not know if our narrative manipulation is a marked improvement over more factually oriented materials such as a fact sheet.

Study 2

As indicated from our discussion of study 1, here we present a study that provides additional evidence that attitude change derived from exposure to narratives about stigmatized groups is driven—at least in part—through increased perceptions of perceived similarity, diminished assessments of stigma, and meaningful affect. To isolate the effect of story structure (plot) from character emphasis (discourse), we employ a similar narrative format to our initial study against identical content presented in a randomized order so as to only manipulate plot. We also include a fact sheet condition that presents participants with broad issue-related information to establish the superior persuasive influence of a structured narrative to more factually-oriented accounts and a control condition to show changes in outcomes from baseline levels. Finally, in addition to testing variants on our original stimulus materials about Syrian refugees resettled in the United States, we included a second story topic to determine whether the relationships observed in study 1 were idiosyncratic to the stimulus employed there. We also use a control condition to establish baseline levels of outcome variables for comparison to the narrative conditions.

Method

Procedure and design

This data was collected in the spring of 2017 using a department participant pool. The design features a 2 x 4 partially within subjects design where participants were assigned to both a foreign aid and refugee story and within each are randomly assigned to view a narrative, randomized narrative, randomized fact sheet, or control condition. The full stimulus materials are provided in a supplement along with the text of all measures (see osf.io/y6vt2).

After indicating their consent to participate in the study, participants provided identical demographic information to study 1 in addition to responses on the moral foundations questionnaire. At this point, participants were assigned to either a condition in the foreign aid or refugee story topic where they filled out responses pertinent to that stimulus before proceeding to a condition in the other story topic and then responded to identical variables. Within each story topic, participants were asked to read the story and afforded a chance to review the text before moving on to the outcome measures (narrative engagement, transportation, stigma, perceived similarity, affect, attitude, and behavioral intent). Only after viewing both story topic conditions and filling out the respective outcomes were participants presented with the altruistic behavior measure where they were given an opportunity to indirectly help both foreign agricultural workers and locally resettled refugees. Demographics, MFQ, transportation, and behavioral intent were not used in analyses. The first author's home instructional review board approved the study (VT IRB# 17-304) and subjects were compensated with course credit.

Stimulus materials

In addition to the Syrian refugee stimulus used in study 1, we also employed a second stimulus about a foreign aid recipient. The foreign aid story features a Mexican farmer who has benefited from a locally administered aid program funded by the United States. The farmer was provided with assistance in the form of livestock, farm equipment, and education. As a result, his family broke out of its hand-to-mouth existence.

The manipulation employed in our first study conflated a focus on character with a narrative story structure. Here, we aim to disentangle these two concepts from one another and to test effects across more than one stimulus topic. We assigned participants to read one of the following for each of the topics (refugee and foreign aid): a story that is well-structured that also focuses on a specific individual's lived experiences (the narrative condition), a story that is randomly and therefore incoherently structured that focuses on an individual (the randomized narrative condition), one that is randomly structured that features information about the broader issue without mentioning a specific character (fact sheet condition), or a tutorial that had no bearing on the dependent variables (the control condition) to estimate baselines for the outcome variables. Being able to compare the effect of each of these stimuli on outcomes is meaningful. The

Table 2: Univariate Effects of Refugee Narrative on Dependent Variables by Condition, Study 1.

Dependent variable	F	p	Condition	M	SE
Narrative engagement	3.85	0.051	Non-narrative	4.78	0.78
			Narrative	5.05	0.92
Meaningful affect	0.41	0.523	Non-narrative	4.47	0.18
			Narrative	4.63	0.12
Homophily	0.14	0.713	Non-narrative	3.81	0.21
			Narrative	3.91	0.19
Stigma	0.13	0.718	Non-narrative	2.44	0.13
			Narrative	2.38	1.03
Attitude	0.04	0.843	Non-narrative	4.42	0.18
			Narrative	4.36	0.20

Note. $df_1 = 1, df_2 = 157$.

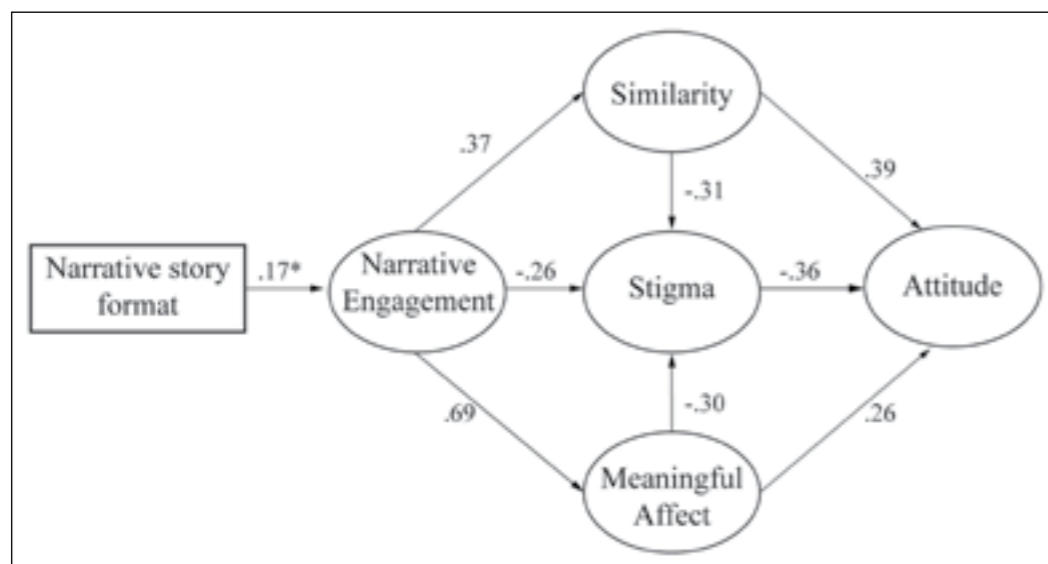


Figure 1: The effect of narrative story format on the dependent variables, study 1. Narrative format is coded such that 1 = Narrative and 0 = Non-narrative.

* $p = .049$. All other paths are significant at $p < .001$.

comparison between the two stories that focus on a character but vary on story structure can show us whether plot elements like story structure are consequential in narrative persuasion. While narratologists would contend that a better or more coherent plot would possess greater levels of narrativity (Prince, 1987, 2008), it is as of yet unclear whether this directly translates into greater persuasive effects. Furthermore, comparisons between the structured narrative condition and the fact sheet can demonstrate that a narrative emphasizing a character's lived experience is a superior persuasive tool compared to a raw information devoid of narrative qualities. Practically this is also important for communication professionals who may be faced with a choice between investing resources in either narrative or informational appeals. Finally, comparisons between the control group and any other condition will allow us to assess changes from baseline levels.

The first author on this manuscript wrote the stimulus materials for each of the conditions. The randomized narrative is identical in content to the narrative condition, however, the story's paragraphs were presented in a randomized order. The story appeared to be an authentic news account, although it was never explicitly identified as such. The fact sheet condition featured broad information about the topic but was not illustrated through a specific individual. For example, while the refugee narrative condition shows how the mediated character cannot find a job because his credentials from Syria did not transfer to the United States, the fact sheet condition states that many Syrian professionals take entry level jobs for the same reason. In both the randomized narrative and randomized fact sheet condition, all participants were presented with the information in a random order. The control condition presented participants with a coherent structure but a separate topic (how to make a French press cup of coffee or variants on how to tie running shoes).

Participants

The initial sample consisted of 1,034 participants, but one participant dropped out of the study before reaching the stimuli and was removed from the data. Similar to study 1, participants who spent between 45 and 300 seconds with the stimulus material either in their initial viewing or upon review were retained. The screening procedure was conducted independently for the refugee and foreign aid portions of the data as participants might have spent an acceptable amount of time with one stimulus but not the other. The screening procedure left a total of 1,393 cases across both topic conditions. The refugee condition had 713 cases with 180 in the narrative condition, 190 in the randomized narrative condition, 166 in the fact sheet condition, and 178 in the control condition. One person declined to provide information on sex (57.4% female). Participant age ranged between 18 and 46 ($M = 20.75$, $SD = 1.88$). A chi-square test of independence examining the relationship between experimental condition for the refugee condition did not find a significant relationship between experimental condition and screening $\chi^2(3, N = 1,033) = 3.99, p = .262$. A total of 680 participants

(58.2% female) were retained for the foreign aid data with an age range between 18 and 46 ($M = 20.75, SD = 1.94$); 168 participants were retained for the narrative condition, 177 for the randomized narrative condition, 157 for the fact sheet condition, and 178 for the control condition. There was also no relationship between screening and the foreign aid experimental condition $\chi^2(3, N = 1,033) = 5.50, p = .139$.

Measures

All measures except behavior, attitude, and meaningful affect are identical to those in study 1 and can be found in the supplemental materials (see osf.io/y6vt2). The attitude scale for ratings of the farmer substituted "Mexican farmer" for "refugee" as appropriate. Like the first study, narrative engagement ($\alpha = .72$), perceived similarity ($\alpha = .96$), stigma ($\alpha = .81$), and attitude ($\alpha = .91$) were sufficiently reliable. We constructed the meaningful affect scales following a similar procedure to study 1. First, we conducted an exploratory factor analysis using just the narrative and randomized narrative conditions. The analysis resulted in a two factor solution accounting for 75.54% of the variance in the items. The first factor, positive affect, consisted of happy, joyful, and warm but was not used in subsequent analyses. The second factor, meaningful affect, consisted of sympathetic, compassionate, moved, and sad ($\alpha = .91$).

The altruistic behavior measure was presented to participants as a question unrelated to the study in which they had just participated. They were told a campus organization that had raised \$3,000 to donate to a charity and was seeking advice for where the money should be donated so the funds would have the largest positive impact on people. Participants were directed to indicate the proportion of the funds that should go to each organization. The participants were presented with descriptions for six local organizations. Two organizations, HireMe and Football Injury Legacy Foundation, were designed to allow participants to draw on self-serving motivations. Two other organizations, Welcome Home-VA and Virginians for Redistricting were described to allow participants to engage in altruistic behavior unrelated to the story topics. Finally, two organizations, Virginia Refugee Assistance and International Agricultural Outreach Council (IAOC) were described to allow participants to engage in altruistic behavior toward one or both of the story subjects to which they may have been assigned; the proportion of the funds the students indicated should be donated to these organizations was used as the behavioral measure. Descriptives for measures can be found in **Table 3a** and by condition in **Table 3b**. Because participants were given two opportunities to view the stimulus to which they had been assigned, we report descriptives for their minimum and maximum times spent with the stimuli.

Results

Like the first study, we conducted several ANOVAs to examine the main effect of the narrative manipulation on the outcome variables by topic condition. Main effects for the refugee stimuli are presented in **Table 4a** and main

Table 3a: Descriptives and Correlations, Study 2.

	1	2	3	4	5	6	7	8
<i>N</i>	1,393	1,393	1,393	1,393	1,393	1,393	1,393	1,393
<i>M</i>	3.41	3.69	3.52	2.32	4.35	19.17	0.83	3.81
<i>SD</i>	1.09	1.75	1.48	0.87	1.32	20.83	0.9	11.72
1. Narrative engagement	1							
2. Meaningful affect	.57***	1						
3. Homophily	.15***	.11***	1					
4. Stigma	-.33***	-.27***	-.30***	1				
5. Attitude	.27***	.31***	.43***	-.44***	1			
6. Behavior	.18***	.18***	.24***	-.30***	.44***	1		
7. Time minimum	-0.04	0.03	.06*	-.07**	.08**	.08**	1	
8. Time maximum	-0.04	0.03	0.03	-0.03	0	.07*	.26**	1

Note: * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3b: Descriptives By Condition, Study 2.

	Refugee				Farmer				Total n = 680 M(SD)	
	Narrative n = 180 M(SD)	Rand. Narr. n = 190 M(SD)	Fact Sheet n = 166 M(SD)	Control n = 177 M(SD)	Total n = 713 M(SD)	Narrative n = 168 M(SD)	Rand Narr. n = 177 M(SD)	Fact Sheet n = 157 M(SD)		Control n = 178 M(SD)
Nar. Engagement	4.25(0.90)	3.96(0.90)	3.56(0.86)	2.88(0.88)	3.67(1.02)	3.79(0.97)	3.45(0.92)	2.73(1.00)	2.59(0.98)	3.14(1.09)
Affect	5.04(1.19)	4.72(1.31)	4.80(1.32)	1.88(1.11)	4.12(1.78)	3.99(1.20)	4.11(1.24)	3.39(1.46)	1.59(0.92)	3.25(1.59)
Homophily	3.72(1.54)	3.56(1.58)	3.61(1.44)	3.61(1.49)	3.62(1.52)	3.46(1.44)	3.40(1.45)	3.32(1.56)	3.44(1.42)	3.41(1.44)
Stigma	1.92(0.79)	2.09(0.83)	2.30(0.90)	2.35(0.85)	2.16(0.86)	2.29(0.73)	2.34(0.80)	2.62(0.89)	2.74(0.88)	2.50(0.84)
Attitude	4.78(1.38)	4.67(1.37)	4.77(1.37)	4.54(1.41)	4.69(1.38)	3.97(1.08)	3.99(1.18)	3.96(1.16)	4.02(1.17)	3.99(1.15)
Behavior	26.84(22.94)	25.64(23.69)	25.57(23.15)	23.99(22.19)	25.52(22.98)	13.10(13.93)	13.07(15.96)	11.05(15.16)	12.72(17.77)	12.52(15.79)
Time Minimum	0.71(0.83)	0.91(0.83)	0.92(0.99)	0.80(0.96)	0.83(0.90)	0.71(0.78)	0.93(0.94)	0.83(0.90)	0.79(0.96)	0.82(0.90)
Time Max	3.02(2.61)	3.03(2.97)	4.44(20.58)	3.44(5.29)	3.46(10.46)	4.14(9.41)	5.53(19.98)	4.07(11.74)	2.95(5.77)	4.17(12.91)

Note: Times are displayed as minutes.

effects on outcomes for the foreign aid condition are presented in **Table 4b**.

We built a path analysis testing the fit of the data in similar to study 1 with the primary difference being the addition of a behavioral measure. The exogenous variable, narrative format, is coded such that zero corresponds to our randomized narrative condition and 1 is the (structured) narrative. The models show how the presence of structure influences narrative engagement, which in turn elicits varying levels of perceived similarity, stigma, and meaningful affect. We pooled participants from both the refugee and foreign aid conditions and found the model was an acceptable fit to the data $\chi^2(10) = 18.18$, $p = .052$, CFI = .99, RMSEA = .034, 90% CI [.000, .058], pclose = .848. Additionally, we constructed 95% bias corrected confidence intervals using 5,000 bootstrapped samples found a significant indirect effect of narrative condition on behavior ($\beta = .026$, $p < .001$). The same analysis also indicated that a significant indirect relationship via perceived similarity ($\beta = .005$, $p < .001$), affect ($\beta = .011$, $p < .001$), and stigma ($\beta = .009$, $p < .001$).⁶

To assess whether the path weights were invariant between the two sets of stimuli, we conducted a multiple group analysis in AMOS by constraining the regression paths between variables to be invariant between conditions. This procedure indicated that the model fit was significantly worse by constraining the weights $\chi^2(10) = 78.37$, $p < .001$. We examined pairwise parameter comparisons and found the paths between narrative engagement and affect, perceived similarity and stigma, stigma and attitude, and attitude and behavior to be significantly different at $p < .05$. Therefore, we also constructed separate models for each of the story topics in AMOS and while both the refugee model $\chi^2(10) = 7.93$, $p = .636$, CFI = 1.00, RMSEA < .001, 90% CI [.000, .073], pclose = .962 and the foreign aid model $\chi^2(10) = 14.03$, $p = .172$, CFI = .984, RMSEA = .034, 90% CI [.000, .073], pclose = .708, are a good fit to the data, there are some notable differences between the two indicated in **Figure 2** alongside path weights for each model.⁷

We examined the indirect effect of narrative format on behavior in each of the individual story topic models and

Table 4a: Univariate Effects of Refugee Narrative on Dependent Variables by Condition, Study 2.

Dependent variable	F	p	Condition	M	SE
Narrative engagement	80.36	<.001*	Narrative	4.25	0.07
			Random narrative	3.96	0.06
			Random fact sheet	3.56	0.07
			Control	2.89	0.07
Meaningful affect	257.8	<.001*	Narrative	5.04 _A	0.09
			Random narrative	4.72 _A	0.09
			Random fact sheet	4.80 _A	0.10
			Control	1.88	0.09
Similarity	0.42	0.739	Narrative	3.73 _A	0.11
			Random narrative	3.55 _A	0.11
			Random fact sheet	3.61 _A	0.11
			Control	3.61 _A	0.10
Stigma	10.02	<.001*	Narrative	1.92 _A	0.06
			Random narrative	2.09 _{AB}	0.06
			Random fact sheet	2.30 _{BC}	0.07
			Control	2.35 _C	0.06
Attitude	1.09	0.354	Narrative	4.78 _A	0.10
			Random narrative	4.68 _A	0.11
			Random fact sheet	4.77 _A	0.11
			Control	4.54 _A	0.11
Behavior	0.46	0.709	Narrative	26.84 _A	1.71
			Random narrative	25.64 _A	1.72
			Random fact sheet	25.56 _A	1.80
			Control	23.99 _A	1.67

Note. $df_1 = 3$, $df_2 = 709$. Starred significance values survive a Bonferroni correction of $\alpha/6$ or $p < .0083$. Means that do not share a common subscript are significantly different at $p < .05$ or lower using Tukey's HSD.

Table 4b: Univariate Effects of Foreign Aid Narrative on Dependent Variables by Condition, Study 2.

Dependent variable	F	p	Condition	M	SE
Narrative engagement	60.17	<.001*	Narrative	3.79	0.08
			Random narrative	3.45	0.07
			Random fact sheet	2.73	0.08
			Control	2.59	0.07
Meaningful affect†	162.7	<.001*	Narrative	3.99 _A	0.09
			Random narrative	4.11 _A	0.09
			Random fact sheet	3.39	0.1
			Control	1.59	0.09
Similarity	0.27	0.846	Narrative	3.46 _A	1.44
			Random narrative	3.40 _A	1.45
			Random fact sheet	3.33 _A	1.46
			Control	3.44 _A	1.42
Stigma†	11.64	<.001*	Narrative	2.29 _A	0.06
			Random narrative	2.35 _A	0.06
			Random fact sheet	2.62 _B	0.07
			Control	2.74 _B	0.06
Attitude	0.07	0.974	Narrative	3.97 _A	0.08
			Random narrative	3.99 _A	0.09
			Random fact sheet	3.96 _A	0.09
			Control	4.02 _A	0.09
Behavior	0.61	0.61	Narrative	13.10 _A	1.07
			Random narrative	13.07 _A	1.2
			Random fact sheet	12.72 _A	1.33
			Control	12.52 _A	0.61

Note. $df_1 = 3$, $df_2 = 676$. Starred significance values survive a Bonferroni correction of $\alpha/6$ or $p < .0083$. Means that do not share a common subscript are significantly different at $p < .05$ or lower using Tukey's HSD. † Equal variances are not assumed and post hoc tests are conducted with Dunnett's T3.

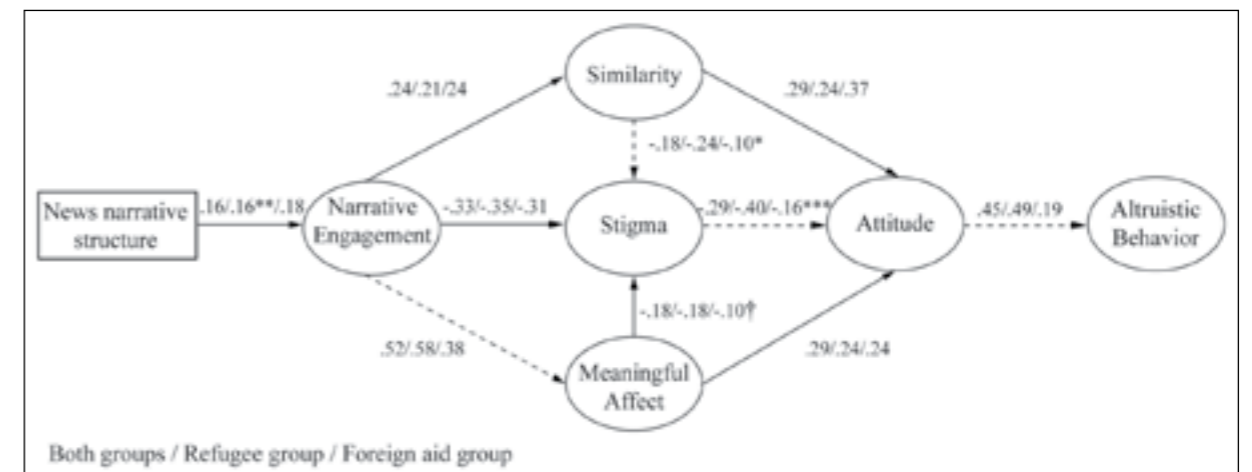


Figure 2: The effect of narrative story format on the dependent variables, study 2. News narrative structure is coded such that 1 = *Structured narrative* and 0 = *Randomized narrative*. Dashed lines indicate path weights are critically different at $p < .05$ between the refugee and foreign aid groups. Fact sheet and control conditions are excluded from this analysis.

† $p = .054$, * $p = .046$, ** $p = .002$, *** $p = .001$. All other paths are significant at $p < .001$.

found that in the refugee condition there is a significant overall indirect effect ($\beta = .003, p = .002$) through perceived similarity ($\beta = .003, p = .001$), affect, ($\beta = .010, p = .001$), and stigma ($\beta = .035, p = .001$). The foreign aid data also indicated an overall indirect effect ($\beta = .008, p = .001$) via perceived similarity ($\beta = .003, p = .001$), affect ($\beta = .003, p = .001$), and stigma ($\beta = .002, p = .001$). Importantly, the effect of a structured narrative on engagement, the second order outcomes, and finally on behavior is in the theoretically predicted direction, and consistent between the refugee and foreign aid stimuli. That said, the effect is a small one and should be drawn upon cautiously due to the exploratory nature of this study.

Discussion for Study 2

Our goal in the second study was to show first that narrative structure is not inconsequential, which we accomplished in part by showing that the structured narrative elicited significantly higher levels of narrative engagement, than the randomized narrative, a fact sheet, or a control condition. Importantly, our examination of main effects also shows that a well-structured narrative, that is to say one with a coherent plot, is superior to a fact sheet at reducing stigma, but we found mixed results in parsing out the importance of plot in reducing stigma. In the refugee condition the randomized narrative did not significantly lower perceptions of stigma attached to refugees but in the foreign aid condition the randomized narrative did significantly lower perceptions of stigma for impoverished farmers.

The path model also indicated that narrative structure was positively related to narrative engagement and indirectly to small changes in altruistic behavior. However, we should caution researchers from interpreting the findings here as evidence for mediation of the effect of narrative on outcomes. We did not directly manipulate our mediators and as such the effects we observed here may be spurious (see Bullock et al., 2010).

Second, we were able to show that the narrative format in both the foreign aid and refugee stimuli was able to decrease stigma from baseline levels in the control condition and was more effective at reducing perceived stigma than an issue-relevant fact sheet. This finding provides preliminary support for concluding that narrative structure plays a role in eliciting narrative engagement. However, the small indirect effect sizes provide only cursory support for structure's role in altering stigma and attitude.

To our knowledge, this is the first time empirical work within the context of narrative persuasion has shown that narrative format decreases perceived stigma attached to a social group. This is an important extension of the work of Oliver et al. (2012), which found that narrative format can improve participants' attitude toward stigmatized groups but could not conclude that the same process destigmatized the story characters. More broadly this work highlights the value of narrative persuasion work as an avenue for understanding how journalism can have prosocial ends beyond its watchdog and informational roles.

Critically, we have demonstrated this effect across two data sets, participant pools, and story topics. That said, we recognize the importance of validating the findings of the first two studies as our work thus far has been exploratory and the need to examine separately the effect of story structure and the presence of a story exemplar.

Study 3 Registered Report

Research Questions and Hypotheses

While our initial studies were able to show that a structured story elicited significantly higher amounts of narrative engagement than a randomized story structure, we were not able to individually examine the effect of character emphasis on narrative engagement. We addressed that shortfall in our final study by comparing a journalistic narrative that is told from the perspective of a person involved in the story's events to one that is identical in the information conveyed but told from the perspective of a detached expert. A second factor, story structure, allowed us to examine the effect of structure independently of character perspective by randomizing the order in which paragraphs are displayed to participants. Our initial studies were able to show that a structured story elicited significantly higher amounts of narrative engagement than a randomized story structure. While these effects were not large, they serve as a "reality check" on the outcomes expected and additional manipulation used in our third study. We also attempted to replicate our previous finding that narrative influences attitude indirectly through narrative engagement and subsequently stigma, meaningful affect, and perceived similarity as the earlier findings were the result of an exploratory path analysis.

In order to test the direct effects of the experimental manipulations on the outcome variables, we propose the following hypotheses:

- H1a: *The structured narrative will elicit higher levels of narrative engagement than the unstructured narrative.*
- H1b: *The structured narrative will elicit higher levels of similarity than the unstructured narrative.*
- H1c: *The structured narrative will elicit lower levels of stigma than the unstructured narrative.*
- H1d: *The structured narrative will elicit higher levels of affect than the unstructured narrative.*
- H1e: *The structured narrative will elicit higher levels of attitude than the unstructured narrative.*
- H2a: *The exemplar condition will elicit higher levels of narrative engagement than the unstructured narrative.*
- H2b: *The exemplar condition will elicit higher levels of similarity than the unstructured narrative.*
- H2c: *The exemplar condition will elicit lower levels of stigma than the unstructured narrative.*
- H2d: *The exemplar condition will elicit higher levels of affect than the unstructured narrative.*
- H2e: *The exemplar condition will elicit higher levels of attitude than the unstructured narrative.*

In addition to the direct effects we propose above, we also hypothesize that the interrelationships identified in the first two studies will be reproduced here. Thus, we hypothesize the following:

- H3a: *Narrative engagement will be positively related to perceived similarity.*
- H3b: *Perceived similarity will be negatively related to stigma.*
- H3c: *Perceived similarity will be positively related to attitude.*
- H4a: *Narrative engagement will be positively related to affect.*
- H4b: *Meaningful affect will be negatively related to stigma.*
- H4c: *Meaningful affect will be positively related to attitude.*
- H5a: *Narrative engagement will be negatively related to stigma.*
- H5b: *Stigma will be negatively related to attitude.*

In addition to the proposed relationships listed above, we will also validate the path model from the previous two studies and the indirect effect of the manipulations on attitude. We also therefore propose:

- H6a: *The story structure condition will have a significant overall (indirect and direct), positive relationship on attitude.*
- H6b: *The story exemplar condition will have a significant overall (indirect and direct), positive relationship on attitude.*
- H7: *The model will be a good fit to the data.*

All hypotheses, the analysis plan, and the preregistered manuscript are on the OSF (<https://osf.io/da3nw>). The preregistered manuscript can be accessed directly through this link.

Method

The questionnaire for this preregistered report and stimuli can be found on the OSF (osf.io/y6vt2). The study was approved by the authors' home institution IRB (VT IRB# 18-450).

Procedure

Although some of the path weights were significantly different between the foreign aid and refugee stimuli from study 2, the exploratory model was structurally identical between the conditions and we thus opted to employ only the refugee topic in study 3. We used a 2×2 between-subjects experimental design where participants were randomly assigned to read a story that varies on the character emphasis (exemplar vs. expert) and the story structure (structured vs. randomized). Character emphasis was manipulated by having the story told from the perspective of the refugee—as was the case in study 1—or from the perspective of an expert that uses generalized descriptions of similar situations that refugees have experienced.

Participants accessed the study through their MTurk account and filled out basic demographic information (age, sex, race, and political ideology). Then participants were randomly assigned to one of the four experimental conditions. After reading the story, participants filled out measures for knowledge, affect, narrative engagement, similarity, perceived stigma, and attitude toward Syrian refugees.⁸

Participants

Participants over 18 years of age that reside in the United States were recruited through MTurk. Participants needed to have a 90% HIT approval rate to participate. A power analysis for the RMSEA model fit indicated we needed to collect 925 participants ($df = 10$, power = .90, $\alpha = .05$, null RMSEA = .05, alternative RMSEA = .01) (see Preacher & Coffman, 2006). Participants were compensated with \$.50. Participants were screened by the same time filter from study 1 in addition to several additional methods. We removed participants who failed one or both attention check items that ask for specific responses, e.g. "Mark 'Strongly agree,'" participants that straight lined more than one scale, left a scale completely empty, or failed two or more of the three story knowledge checks. Assuming similar attrition to study 1, we initially collected 31% more participants than we needed ($N = 1,212$). After screening, we were left with 925 participants. We planned to collect data from more participants if the screening procedures left us with fewer than 925 participants. After five rounds of data collection we were left with the requisite number of participants.⁹ The final, screened sample was 52.5% female ($n = 486$) with three participants declining to indicate their sex. The age of the participants ranged from 18 to over 80 ($M = 42.65$, $SD = 13.71$).

As a contingency against being unable to recruit a sufficient number of participants from MTurk, we planned gather the difference required from a department participant pool, identical to study 2. This turned out not to be necessary, but because of the timing of the study, we were not able to run these data collections consecutively but instead had to run them concurrently. The participants collected through the department pool are not included in the results reported as part of the planned analyses here.¹⁰

Measures

With the exception of story knowledge and meaningful affect, all measures employed were identical to study 2. The knowledge questions, like items used in the previous studies, are listed on the OSF (osf.io/y6vt2).

To determine the content of the meaningful affect scale, we built a confirmatory factor analysis in AMOS that had the meaningful affect items from study 1 as indicators on a latent factor. We planned to conduct an EFA in SPSS using principal axis factoring and promax rotation if we found unacceptable fit statistics for the CFA ($CFI < .90$ and $RMSEA > .05$), which we did ($CFI = .94$, $RMSEA = .151$). We then examined the factor structure of all the affect items including those that did not previously load on meaningful affect. Items with commonalities less than .3 or that fail the 60/40 rule were eliminated individually

and then the factor analysis was run again. Items with low communalities were dropped first, then poorly loading items, then cross loading items. We planned to use the factor with the greatest number of items from the meaningful affect scale in study 1 as the scale for study 3. As a contingency in the case that meaningful affect items were distributed equally among multiple factors, we planned to use each scale in subsequent analyses as long as they were sufficiently reliable (i.e. $\alpha > .70$). If Cronbach's alpha was not sufficiently high, items would have then been dropped if they improve alpha one at a time until $\alpha > .70$ or until two items remained, at which point the measure would be dropped from the analysis. The EFA resulted initially in a three-factor solution that accounted for 69.21% of the variance in the items. One item (mellow) was dropped because of a low communality. A subsequent analysis resulted in several items being dropped because of poor loading or cross loading. The final factor solution resulted in a two-factor solution accounting for 76.09% of the variance across the items. The first factor was identical to the meaningful scale from study 1 and consisted of sympathetic, moved, compassionate, tender, soft-hearted, and touched. The second factor consisted of happy and joyful, which was not used in subsequent analyses. Although not listed as part of our preregistered analysis for the third study, the items for the affect scale were summed and averaged.

Descriptives and interitem correlations are reported in **Table 5**. All scales were found to be sufficiently reliable.

Analysis Plan

Like study 1 and study 2 we employed multiple ANOVAs to examine the main effects of the independent variables (exemplar and story structure) on outcomes (H1a-e and H2a-e). If the significance level for each individual test is greater than .05 we concluded there was no main effect on the outcome variable. If the test produced a significance level less than .05 but greater than .01 we concluded that there is weak evidence to support the claim that there is a main effect. A significance level < .001 was used to indicate

that there is evidence to support the claim that there is a main effect on the outcome tested.

We also constructed the path analysis from study 2 with two differences: story structure (0 = Unstructured) and exemplar (0 = Expert) were used as predictors of narrative engagement and behavior will not be used as the link between attitude and behavior is well established (see M. Kim & Hunter, 1993). We planned to add multiple meaningful affect scales to the model if an EFA resulted in multiple affect scales. We planned to assess the model fit as a good fit to the data if the RMSEA is <.05 and CFI > .95, the lower RMSEA bound was = .00 and the upper bound was <.05. We planned to assess the model as an acceptable fit if the CFI > .90 and the RMSEA 90% confidence interval includes .05 but was below .10 (see Kline, 2015). The same model fit tests were used to examine the model fit of the theoretically proposed path analysis (H7). If the data were not a good fit to the model (RMSEA > .05 and CFI < .90) then we planned to conclude that the proposed path model was misspecified.

We tested H3-7 in AMOS. To test H3-5, we examined the individual path weights in AMOS and interpret significance levels identically to those described in our ANOVA analysis. We examined H6a-b with an indirect effects test by using 5,000 bootstrapped samples to construct bias corrected confidence intervals in our estimation of an effect. We considered the effects independently and significantly different at $p < .05$. If the effects were not statistically significant, then we planned to conclude that there was no indirect relationship between the manipulated variables and attitude.¹¹

If we found evidence for a good or acceptable model fit (H7) and H1a, H2a, and H3-5 were supported but did not find evidence for concluding that there is an indirect effect between the experimental variables and attitude (H6a-b), then we would have interpreted this finding as providing evidence in support of the general theoretical model—that narrative persuasion can reduce stigma and improve attitude. However, we would conclude that our manipulations failed.

Table 5: Descriptives and Correlations, Study 3.

	1	2	3	4	5	6
<i>N</i>	925	925	925	925	925	925
<i>M</i>	5.05	4.99	4.26	2.17	4.61	138.7
<i>SD</i>	0.93	1.4	1.53	0.92	1.41	59.18
Cronbach's α	0.83	0.94	0.95	0.94	0.93	N/A
1. Narrative engagement	1					
2. Meaningful affect	.59***	1				
3. Similarity	.28***	.36***	1			
4. Stigma	-.52***	-.41***	-.31***	1		
5. Attitude	.39***	.57***	.48***	-.51***	1	
6. Time with stimulus	.11**	.08*	0	-.12***	0.05	1

Note: * $p < .05$, ** $p < .01$, *** $p < .001$.

The study protocol was approved by the authors' home institution (protocol number 18-450).

Results

Our anonymized data reported here are available on the OSF along with the SPSS syntax used to run analyses and the AMOS file used to construct the path analysis (osf.io/y6vt2).

Per our analysis plan, we ran individual ANOVAs in order to test H1a-e and H2a-e, which collectively hypothesize a main effect of our manipulations on outcome variables. These hypotheses and analyses were included in the planned analysis to clearly assess the causal effect of the independent variables on outcomes—whereas our path model, which we examine later, allows for us to test the proposed, overall set of interrelationships between the variables. The data indicate evidence that story structure had a main effect in the hypothesized direction on narrative engagement thereby providing support for H1a, which shows that a deliberately, well-structured text does increase the level of narrative

engagement that participants reported. There was, however, only weak evidence that structure influenced affect in the hypothesized direction (H1d). There was also no evidence that structure influenced similarity (H1b), stigma (H1c), or attitude (H1e). Full results are reported in **Table 6a**.

Like story exemplar, we were able to conclude that there was evidence that a story exemplar was significantly more narratively engaging than a story focusing on expert testimony (H2a). There was likewise weak support for the hypotheses that story exemplar influenced stigma (H2c) and meaningful affect (H2d). Like story structure, there was no main effect of story exemplar on similarity (H2b) or attitude (H2e) (see **Table 6b**).

In order to test H3a-c, H4a-c, and H5a-b, we built the path model in AMOS. All paths were in the predicted direction and statistically significant at $p < .001$, indicating support for each hypothesis (see **Figure 3**). We also found the model to be an acceptable fit to the data indicating support for H7, $\chi^2(10) = 25.10$, $p = .005$, CFI = .99, RMSEA = .040, 90% CI [.021, .061], pclose = .764.

Table 6a: Main Effects of Structure Condition on Dependent Variables.

Dependent variable	<i>F</i>	<i>p</i>	Condition	<i>M</i>	<i>SE</i>
Narrative engagement	17.61	<.001	Structured	5.17	0.04
			Unstructured	4.91	0.04
Meaningful affect	4.38	0.037	Structured	5.08	0.06
			Unstructured	4.88	0.07
Similarity	0.91	0.342	Structured	4.21	0.07
			Unstructured	4.31	0.07
Stigma	0.314	0.575	Structured	2.15	0.04
			Unstructured	2.18	0.05
Attitude	0.843	0.359	Structured	4.66	0.06
			Unstructured	4.57	0.07

Note: $df_1 = 1$, $df_2 = 923$.

Table 6b: Main Effects of Exemplar Condition on Dependent Variables.

Dependent variable	<i>F</i>	<i>p</i>	Condition	<i>M</i>	<i>SE</i>
Narrative engagement	32.39	<.001	Exemplar	5.21	0.04
			Expert	4.86	0.04
Meaningful affect	4.53	0.034	Exemplar	5.08	0.06
			Expert	4.88	0.07
Similarity	1.93	0.165	Exemplar	4.33	0.07
			Expert	4.19	0.07
Stigma	9.22	0.002	Exemplar	2.08	0.04
			Expert	2.26	0.05
Attitude	0.08	0.782	Exemplar	4.62	0.06
			Expert	4.6	0.07

Note: $df_1 = 1$, $df_2 = 923$.

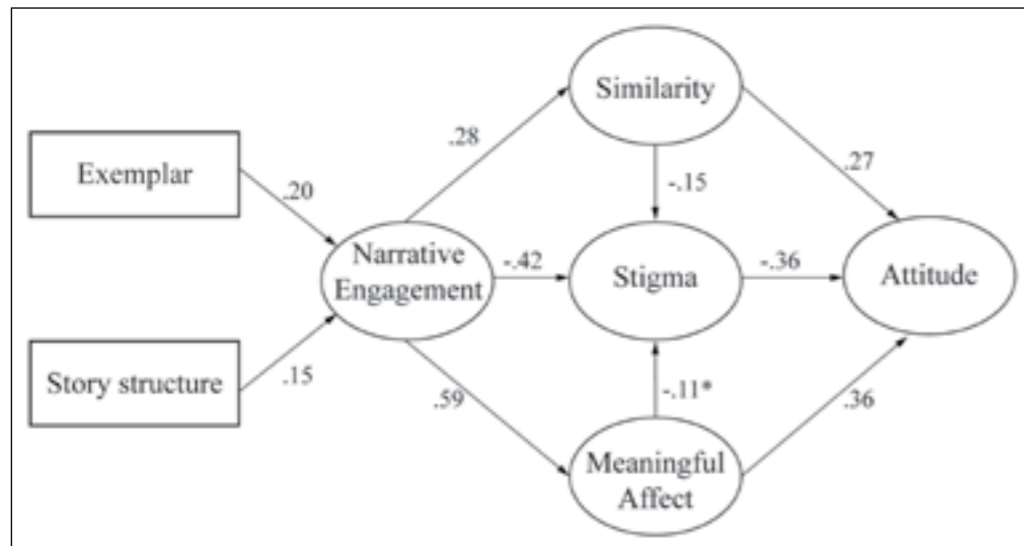


Figure 3: The effect of exemplar and story structure on the dependent variables, study 1. Exemplar is coded such that 1 = *Exemplar* and 0 = *Expert*; Structure is coded such that 1 = *Structured* and 0 = *Unstructured*. * $p = .002$. All other paths are significant at $p < .001$.

To test H6a, we conducted an indirect effects test of story structure on attitude. Using 5,000 bootstrapped samples to construct bias corrected 95% confidence intervals for standard errors to estimate significance levels, we found partial support for the hypothesis in that there was a significant total indirect effect of structure on attitude ($\beta = .15$, $p < .001$). Using the same approach, we also found support for H6b in that the total indirect effect of exemplar on attitude was significant ($\beta = .20$, $p < .001$). Both hypotheses were only partially supported because the ANOVA tests for direct effects did not produce significant results for a main effect of story structure or exemplar on attitudes toward refugees.

Study 3 discussion

This study is important because, to date, no work has demonstrated empirically that the narrative persuasion process can lead to decreases in perceived stigma attached to a social group. In our final, registered report, we were also able to show a direct effect of narrative exemplar on stigma. Both story exemplar and story structure were indirectly related to changes in attitude via stigma. This is an important extension of the work of Oliver et al. (2012), which found that narrative format can improve participants' attitude toward stigmatized groups but could not conclude that the same process destigmatized the story characters. We do not mean to imply that past works may not have similarly accomplished a reduction in stigma. Rather this is, to our knowledge, the first empirical study that has integrated stigma into a narrative persuasion framework. As we outlined in our review of extant work, stigma is a pernicious combination of beliefs and stereotypes that, for example, can result in prejudicial behavior toward the stigmatized individual (Dovidio et al., 2000) become an internalized and manifest as result in low self-esteem (Murakami & Latner, 2015). Because we were able to demonstrate stigma reduction across two separate target groups in our second study we are

hopeful that these effects can be replicated for other social groups.

Furthermore, this work proposed a theoretical model to account for how stigma, and subsequently attitude, can be altered through a narrative persuasion stimulus. We argued that as elicited through news accounts, narrative engagement—specifically the emotional engagement and cognitive perspective taking into the narrative world—can elicit meaningful affect and build perceptions of similarity with stigmatized individuals, thereby reducing stigma.

Finally, this study sought to better understand the formal features of a narrative that can drive narrative persuasion effects. We were able to show that in addition to focusing on an exemplar in our final study, story structure—an element of plot—is also consequential in that a well-structured narrative was shown to elicit greater levels of narrative engagement and was indirectly related to changes in attitude. Notably, we did not find a main effect of story structure on attitude or on several of the other key outcomes. Like story structure, we also did not find a main effect of exemplar on attitudes although we did find a main effect of exemplar on stigma. Perhaps this is because attitude is “a convenient summary of a wide variety of beliefs” (Petty & Cacioppo, 1981, p. 8) with stigma serving as just one input into more general attitudes toward a stigmatized individual. Alternatively, the null finding is possibly the result of unidentified moderators. We address this possibility shortly in our general discussion's limitations and future work sections.

General Discussion

Overall, this series of studies provides evidence in general support of the notion that narratives can be used to reduce stigma toward a target population and that meaningful affect and perceived stigma may play a role in such reduction. However, as we point out shortly in our limitation section, the precise role of the proposed mediators warrants further investigation. A secondary

purpose of this study was to put scholarship on narrative persuasion into conversation with that of narratology. Similar to past work, we examined how narratives were differentially persuasive compared to a non-narrative text, such as the fact sheet we used in our second study. Where our work departs from how narrative is typically studied in this field is that we conceptualized narrative as existing along a continuum, from non-narrative to narrative whereas past work often treats texts as either dichotomously as non-narrative texts or narratives. We manipulated story, plot, and discourse elements deliberately to examine how these formal features of a narrative factor into the narrative persuasion process. Our first study employed two conditions which varied the order in which story elements appeared to alter a discourse element, character emphasis, but in so doing also altered plot (i.e. the order in which story elements become known to the reader). There, we did not find a main effect of character emphasis on outcomes but the data did support our overall theoretical model through a path analysis.

The second study sought to disentangle the discourse element of character emphasis from plot by showing participants a news narrative with a coherent plot, the same news narrative with a randomized/incoherent plot, a fact sheet, or a control condition. Participants were exposed to one condition that featured a Syrian refugee or a foreign aid recipient. For both subject conditions (Syrian refugee or foreign aid), the news narrative with randomized plot elements resulted in a less narratively engaging text, but was still superior to the fact sheet or control conditions. This indicates that a coherent plot does make a narrative more engaging and narrative persuasion theory would then predict that such engagement indirectly impacts persuasive outcomes. Even in the absence of a good plot, the story elements (what happens and what was expressed to the audiences) still results in a higher level of narrative engagement than a fact sheet. The randomized news narrative/incoherent plot also reduced stigma for Syrian refugees compared to baseline levels but was not statistically different from the well-structured news narrative or the fact sheet conditions. Importantly, participants who were exposed to the news narrative with a coherent plot perceived Syrians as less stigmatized than the fact sheet and control conditions, indicating that a poor plot does not preclude the destigmatizing effect of a narrative from occurring. For the foreign aid recipient news narratives, we instead found that the narrative conditions, regardless of plot coherence, reduced stigma to a greater degree compared to baseline. Indeed, the fact sheet condition was no different from baseline levels. We took this to mean that there is something other than plot alone that drives the narrative persuasion process.

In our final study we focused on parsing out the influence of plot coherence and character emphasis individually. We manipulated plot coherence similarly to our past studies in that we randomly varied the order or paragraphs shown to participants. Character emphasis was altered by either showing participants a story told from the perspective of a refugee—the exemplar condition—or having them

read the story as told by an expert. Our findings are illuminating in that while plot/story structure was shown to be important in altering narrative engagement directly, it only had a marginal effect on meaningful affect, which we would caution readers not to rely on in their own research. No other outcome was directly influenced by plot coherence. The exemplar condition, however, showed a main effect on narrative engagement, meaningful affect, and perceived stigma.

The findings from our three studies taken together seem to indicate that plot coherence is not inconsequential as it directly bears on narrative engagement. However, it is the use of an exemplar that affords readers the opportunity to emotionally engage and cognitively immerse themselves into a narrative and thereby alter the stigma they attach to refugees. Perceived similarity and attitudes were not impacted directly by the experimental manipulations, but when examining the overall path model that we employed across our studies, the interrelationships between the variables were congruent with our predictions, indicating general support for our theoretical model. We discuss the limitations to these findings shortly.

While we were able to validate our earlier exploratory path models against an independent sample and an *a priori* model, readers should draw upon the findings from the path analysis cautiously for two reasons. First, our final study validated our prior model against an independent sample, which is a necessary aspect of conducting such analyses (see Goodboy & Kline, 2016; Scott & Weber, 2015), but we were unable to examine this effect over time to establish temporal order of the processes as could be done in a longitudinal study. Second, relatively recent advancements in the field's understanding of mediation indicate that careful manipulation of proposed mediators is necessary to determine whether the model only applies to certain participants and whether the studied relationships are spurious (see Bullock et al., 2010).

The findings of this study also bear on the practice of journalism. In addition to its gatekeeping, watchdog, and informational roles, this study shows that the prosocial role of professional journalism extends beyond merely fostering a well-informed public in the service of democracy. As Sunstein (2007) argues, news media organizations can help to expose us to perspectives, ideas, and peoples that we would otherwise not have sought out, thereby reducing polarization. Our findings indicate that news media may also encourage audiences to perspective take and empathize with story subjects with whom audiences would be unlikely to associate. As the link between attitudes, behavioral intentions, and actual behavior is well established (M. Kim & Hunter, 1993), it is possible that such storytelling will also result in greater public support for these populations. Encouragingly, the incidental exposure to such stories makes narrative persuasion a promising avenue for instituting prosocial change for audiences who are not motivated to seek out content that conflicts with their current beliefs or attitudes (see S. M. Smith, Fabrigar, & Norris, 2008).

Although this study was conducted within the theoretical framework of narrative persuasion, journalists may be

concerned that actively drawing from these findings may put them at odds with maintaining objectivity in their role in arbitrating the truth and informing the public of newsworthy happenings (McChesney, 2004; Schudson, 2011). However, journalists should remember that by changing beliefs about contemporary issues or social groups they are inherently also shifting attitudes (see Albarracín, Johnson, Fishbein, & Muellerleile, 2001). Journalists concerned with creating accurate views should then not only be concerned with crafting accurate reporting but also storytelling that is well-written, coherently organized, immersive, and emotionally engaging in service of their informational duties. Therefore, integrating the findings of this study into professional practice is not necessarily antagonistic to the function of journalism within a deliberative democracy. Journalists who are of the opinion that the professional field needs to return to its roots and more actively engage in advocacy are more likely to be comfortable with the notion of deliberately crafting news accounts to be more narratively engaging and therefore have greater indirect bearing on attitudes (see García Martínez, 2019).

The findings of this study are especially timely especially in light of the xenophobic rhetoric employed by the Trump administration and its ongoing efforts to curb refugee admissions into the United States. As of this writing, the Trump administration has effectively stymied the flow of refugees fleeing violence in Syria, El Salvador, and Honduras from seeking refuge in the United States (Hernández & Miroff, 2019; Zezima, 2019). While these xenophobic attacks and policies might be politically calculated, the findings of this study seem to indicate additional means of changing public opinion on the matter and then, perhaps, the political calculus might also be altered as public policy is drafted in response to changes in public opinion (Page & Shapiro, 1983). This is also not a uniquely American phenomenon. For instance, in South Africa immigrants recently came under fire in response to high unemployment, corruption, and economic recession (Chutel, 2019).

That said, both journalists and researchers should not take the findings of this study to mean that narrative persuasion is the best or only way to shift attitudes toward stigma. Indeed, there is ample evidence to indicate that other persuasion strategies aimed at providing new or corrective information are effective such as the Elaboration Likelihood Model (Petty & Cacioppo, 1986b; Petty & Wegener, 1999), social norms approach (Campo et al., 2003), or eliciting cognitive dissonance (Ciao & Latner, 2012; Elliot & Devine, 1994). Instead we would recommend that journalists, advocates, and researchers recognize that narrative storytelling is just one of several avenues for shifting prejudicial attitudes and stigma.

Limitations

The findings of this study need to be considered in light of several limitations. Most notably, while employing manipulations for similarity, affect, and stigma would allow us to make claims about their mediating role in improving

attitudes toward stigmatized groups (see Bullock et al., 2010), that work is beyond the scope of this project as it would take several additional studies to develop those manipulations. In the meantime, readers should remember it is possible that an unobserved variable can account for the relationships we observed here. That we did not find evidence of a main effect of the experimental manipulations on several outcomes over the course of our studies could indicate a moderating condition that must be present or absent in order for the narrative persuasion process, at least in the way it was theorized here, to function. For example, xenophobia could ostensibly depress levels of engagement into a narrative with refugees, drive down perceptions of similarity, diminish affective reactions to the story, and subsequently also account for high degrees of stigma and negative attitudes toward refugees. Yet, for participants who were narratively engaged—in part because of a lack of xenophobia in this example—the theoretical model functions as predicted. For this reason, we cannot stress enough the need to only cautiously draw on the findings without additional confirmatory work. This subsequent work may be of especial importance for narrative persuasion scholars because if it is the case that only some participants can be influenced within the narrative persuasion model—such as participants who do not harbor xenophobic beliefs or attitudes when the messaging deals with refugees or immigrants—then the utility of narratives as persuasive tools may need to be reassessed.

Another limitation of our final study is that we cannot be sure that we changed attitudes or stigma from baseline levels since we did not include a control group. Although our second pilot study employed a control condition to examine changes from baseline, we opted to forego using a control condition in our final study because doing so would have been difficult given the constraints of time and the available participant pool. Even gathering just the requisite participants to satisfy our *a priori* power analysis required numerous rounds of data collection from MTurk. However, as we were able to show stigma reduction compared to baseline in our second study, we are reasonably confident that this change from baseline would be replicable.

The effects we identified here also need to be tested in more natural settings both over time and in an ecologically valid environment to determine the degree to which they degrade or are susceptible to counter messaging. It is entirely possible that without reinforcement the changes we found in stigma could reset to baseline levels in several hours, days, or weeks. We should also stipulate that our findings here do not indicate that news media messages are currently serving to destigmatize refugees or other social groups “in the wild.” Research on media selection indicates that individuals make motivated media selections (see Rubin, 2009 for a review). Ostensibly, individuals who are predisposed to perceive refugees as stigmatized will avoid media channels or sources that they believe will expose them to counter attitudinal media fare.

Future work

The highest priority for future research should be to probe the mediators we employed in our analysis here as being causally related to stigma and attitude. We have laid the groundwork for future research to more closely examine the potential mediators we used in our theoretical framework in reducing stigma and subsequently improving attitudes toward social groups. Successive research could, for example, employ stimuli that include piped text so as to make the author—in the case of a first-person account—or the story subject appear to be more objectively similar to individual participants. Either earlier in the study or at an earlier time, researchers could gather demographic, employment, or other pieces of data and then alter the story subject to share those characteristics. For instance, participants could be asked to list their geographic location and then the story subject could be described as living or working nearby. As Bullock et al. (2010) indicates, however, this work can be tedious as pretesting is necessary to insure the manipulations of mediators do not unwittingly cause influence any other variable. Again, we wish to stress the importance of not drawing on this study’s findings alone to conclude that perceived similarity and meaningful affect are mediators in the relationship between narrative engagement and stigma reduction. While we believe that our findings show promise regarding the roles of these concepts in reducing stigma, this study should serve as a foundation for future work to definitely establish or discard the roles of these variables in the narrative persuasion process.

As we pointed out in our limitations, this study could not examine the long-term effects of a narrative on stigma or attitudes toward the target population. Also, we do not know whether the effects demonstrated here will reset to baseline after a given period of time. A longitudinal study could answer these questions as well as investigating the effect of repeated exposure to destigmatizing news accounts. More news stories over time might increase the destigmatization effect or at least prolong it. Such a study would likely involve also accounting for exposure to the broader media ecology in which people live outside of a laboratory setting. This poses an additional challenge to future researchers as participants cannot likely segregate themselves from countervailing news narratives or news narratives more generally. Outside of the confines of a controlled experiment then, the effects of a narratively engaging news narrative might possibly be washed out by other media messages.

Public advocates for stigmatized groups will also have a need to understand how or when to integrate narratives into their extant or planned public communications campaigns. As we have shown narratives can be effective in eliciting narrative engagement and therefore cognitive perspective taking and empathic reactions, but advocates will undoubtedly need to correct misperceptions or make specific calls to action. These practitioners will need to know when or if to expend resources to generate and then publicize a narrative persuasion message to optimally achieve their goals. We make no recommendations here, but

possibly a narrative about a stigmatized group may decrease the likelihood of counterarguing from audiences and make them more amenable to more informational campaigns later. Subsequent research could examine how narrative persuasion interacts with informational campaigns. As our second study found, face sheets did elicit narrative engagement compared to a baseline, control group. Then again, we did not measure changes to beliefs or the ability for such texts to correct misperceptions. Relatively recent work on fact-checking indicates that such corrective texts are influential in adjusting belief systems (Gottfried, Hardy, Winneg, & Jamieson, 2013; Walter & Murphy, 2018). We therefore recommend putting the fact-checking literature in conversation with that of narrative persuasion to explore how and if fact checking can be enhanced by integrating compelling narratives into such texts.

As we stated earlier, future work also needs to be done to examine how exposure to destigmatizing narratives functions when it is not clinically isolated from other content as part of a study. People are exposed to numerous media and interpersonal messages on a daily basis, and external to a research setting, this would be the case for anybody exposed to news stories or messaging distributed through an advocate. Researchers might identify typical or problematic media portrayals specific to the stigmatized population at hand, drawing from extant literature, and expose participants to those accounts in conjunction with a narratively engaging and destigmatizing one. Doing so would at least indicate whether typical media content can interfere with the narrative persuasion process. Also, we tested only how narratives expressed in the form of a text story influenced persuasive outcomes. Future work could test whether these effects are stable across media, which would be of benefit to media practitioners who would need to know if this effect is constrained to just textually based messages. There is reason to expect that scholarship building on our findings here but in other media (e.g. video or augmented reality) would find similar results. A meta-analysis of the effect of narrative on outcomes indicated that narratives are more persuasive than comparative non-narrative messages, medium effects (i.e. differences in stimuli presented as text versus video) were not consequential (Braddock & Dillard, 2016). However, there may still be specific circumstances in which medium effects may be found even though generally medium does not matter. For instance, a story in which the audience has difficulty imagining the visual images of a text-based story, perhaps because of deficient writing or the audience may simply not have enough first-hand experience with the topic to conjure up adequate imagery, may be less persuasive than one in which such imagery is provided via video.

We also focused on just two stigmatized groups and a narrow range of potential stories. All of the news accounts were also written in a journalistic style and varying the stigmatized population, happenings in the text, and style may result different outcomes. Future work should examine a wider range of subject material and storytelling style.

Just as the breadth of the subjects featured in our news narratives and their style was narrow, our stimuli across all three studies were also carefully designed to elicit a specific affective response. Obviously, journalists and public advocates are going to face constraints when depicting or describing real events in their own texts, which may elicit partially or wholly different affective reactions from their audiences. Although we drew from extant theory in forming our hypotheses that meaningful affect would be more likely to elicit compassionate and understanding responses from participants (e.g. Bailey & Wojdyski, 2015; E. L. Cohen, 2016; Oliver & Raney, 2011; Wirth et al., 2012), we do not yet know whether meaningful affect is the only affective response that will elicit a reduction to stigma. It is entirely possible that given a particular context affective reactions such as outrage, anger, or other negatively valenced affective states may perform a similar role in the narrative persuasion process.

Additional work is also needed to tease out what it is about plot that matters. We only know that a poorly structured plot, which we operationalized by randomizing the order of paragraphs in our second and third studies, can interfere in eliciting narrative engagement or a similar concept like transportation, which according to extant theory are of great importance in driving persuasion (Busselle & Bilandzic, 2009; Dill & Burgess, 2012; Green, 2004; Green & Brock, 2000, 2002; Green et al., 2004). We can hypothesize that an unstructured plot may impede an effortless immersion into a news narrative since cognitive resources for processing media messages are limited and may only be dedicated when users are motivated and able to expend them (Petty & Cacioppo, 1986a), but research is needed to confirm this or any alternative explanations. More broadly, researchers should examine other formal features of narrative such as medium in eliciting attitude change. Although a meta-analysis of this particular formal feature (text v. video) found that there is no meaningful difference between the two in narrative persuasion work (Braddock & Dillard, 2016), it may be worth exploring whether video or text may be more effective at eliciting changes in perceived stigma since no studies to our knowledge have done so.

Although we set out to reduce stigma toward our target population, it is possible that the psychological processes detailed here could be used to increase stigma for prosocial ends. Public problems such as texting while driving (TWD) have been shown to be difficult to address (Harrison, 2011; Hayashi, Rivera, Modico, Foreman, & Wirth, 2017; Hayashi, Russo, & Wirth, 2015; Prat, Gras, Planes, González-Iglesias, & Sullman, 2015; Seiler, 2015) and researchers have proposed using a social norms approach to decrease texting while driving (TWD) rates (H. Kim, 2018). Our work here suggests a novel opportunity to address the problem much in the same way that stigma was leveraged against smoking to decrease smoking rates at large (Bayer & Bachynski, 2013; Bell, Salmon, Bowers, Bell, & McCullough, 2010; Evans-Polce, Castaldelli-Maia, Schomerus, & Evans-Lacko, 2015; Riley, Ulrich, Hamann, & Ostroff, 2017; Stuber, Galea, & Link, 2009). Since we proposed that stigma can be reduced by eliciting affective

reactions and increasing perceived similarity, having audiences become narratively engaged with a story that does the same for victims of TWD crashes or inversely decreases similarity or elicits negative affective reactions may each increase perceptions of stigma.

Finally, we wish to make several recommendations based on the analysis of our MTurk screening. While we did intend on screening participants from the study, we did not register any analyses of the screening procedures other than to remove participants from the study who failed to pass any one of them. However, we provided additional, exploratory analysis of these screening procedures to aid future scholars in working with volunteer samples similar to those drawn from MTurk. Therefore, while we do make some recommendations based on these supplemental analyses, researchers should interpret these findings cautiously. First, we should point out that the overall retention rate for the registered report (Study 3) was poor as we screened out more than half of the participants who accessed the study. Participants were removed for having failed one or more of the screening methods, but most participants who were eliminated across several criteria, indicating that there is some redundancy between removing participants for spending an inappropriate amount of time with the stimulus and the other screening methods. This is not surprising as participants who engage in problematic study participation behavior in one manner may be likely to do so in a multitude of ways. This also shows us that our screening methods were also likely effective at removing bad participants. It would be more concerning had there been little to no overlap between the participants screened through the individual criteria. The time with stimulus screen removed the greatest number of participants, but participants who failed on this screening method also tended to fail the knowledge screening procedure, which removed participants who failed more than one of the three knowledge questions. A total of 87.5% of the participants who failed the knowledge test also failed the time with stimulus screening procedure, indicating that the timing criteria we set for removing participants was appropriately stringent. Also, while the active screening procedures (knowledge test and attention check) individually filtered about 596 participants, most of these participants were also flagged as problematic by the passive checks (time with stimulus, straight-lining, and skipping) and only 76 participants were removed for solely failing the active checks. Indeed, had we not included passive checks in the data 544 previously screened participants would have been included in the data and these participants would have likely made up the majority of our final sample. There are a host of reasons why the active checks may be less effective. For instance, participants who tend to game the MTurk system may have learned to avoid active checks but still rely on skipping responses or straight-lining scales to speed up their completion rates. Regardless, our recommendation is therefore for future researchers to continue using active checks such as attention checks and knowledge tests in their work—such screening procedures do remove some cases—but to also check data for other weaknesses such as

straight-lining responses or inappropriate time spent in critical sections of the study, which our data indicate were far more effective at removing participants from the study.

Conclusions

While narrative persuasion scholars have studied stigmatized groups in the past, no study to date has tested whether stigma can be reduced through exposure to a narratively engaging news account. Our research provides initial evidence that narrative persuasion can indeed influence stigma and we provide a plausible theoretical model. Specifically, emphasizing protagonists' lived experiences by telling a story from their perspective was shown to bear a direct influence on stigma. However, we were unable to show a direct effect of our experimental manipulations on attitude across any of our studies. The indirect effect we found on attitude should be drawn upon cautiously until additional work can more vigorously test role of our proposed mediators in our theoretical model.

Data Accessibility Statement

All the stimuli, presentation materials, participant data, and analysis scripts can be found on this paper's project page on the OSF (osf.io/y6vt2).

Notes

- ¹ We should clarify here that we do not mean to diminish the impact of entry denials on migrants and their families. Rather, our intention was to convey that problematic public policy, which results in entry denials, creates cascades of additional problems for immigrants as is illustrated by authors of public policy using entry denials as a pretense to leverage the state apparatus to deny even greater numbers of immigrants entry, which Kundnani (2001) points out. This footnote was not present in the preregistered manuscript.
- ² Normals in stigma research often refer to non-stigmatized individuals (Goffman, 1974). This footnote was not present in the preregistered manuscript.
- ³ Specifically, this work found that perspective taking into a black body reduced bias toward dark-skinned individuals as indicated through an implicit attitude test. This footnote was not present in the preregistered manuscript.
- ⁴ In the preregistered manuscript, the sentence originally read "... whereas Cobley (2014) ...". The edit was changed as we did not intend to contrast Cobley's view of narrative with Abbott's.
- ⁵ In the preregistered manuscript, this sentence was unclear as it seemed to imply that combining the 12 narrative engagement items into a single scale was acceptable when we meant that the .77 alpha for the scale was acceptable. Although Busselle and Bilandzic recommend that their scale can be used in this manner, we did not mean to imply that the general practice of doing so was acceptable.
- ⁶ Two changes were made to this paragraph after the preregistered manuscript was accepted. First, we amended the language preceding the model fit test that drew on the pooled participants from both the refugee

and foreign aid condition. The original language may have been interpreted to mean that we conducted two separate model fit tests. The second change was an error in reporting that the indirect effect of narrative on behavior was negative when it should have been positive.

- ⁷ The model fit reported for the foreign aid model originally misreported the RMSEA in the preregistered manuscript as $< .034$ when it should have read $RMSEA = .034$. In Figure 2, we also added a note clarifying that the figure excludes the fact sheet and control conditions and changed the labels that appeared in the figure as they were inconsistent with their corresponding textual descriptions.
- ⁸ Our initial preregistered analysis plan left out "perceived similarity" from the description of the procedure. This deviation was noted in a secondary preregistration prior to the start of data collection (see <https://osf.io/krnjs>).
- ⁹ The first round of data collection consisted of 1,212 participants collected and screening left 637 in the sample, retaining 52.56% of the participants and leaving 288 to be collected. The second round collected an additional 425 participants with 213 (50.12%) retained after screening with 75 participants still needed. The third round collected 111 participants with 69 retained (62.16%) with six more required. The fourth round collected 10 participants and retained 4 (40%) and the final round was able to collect the remaining two from a total of three responses collected. We provide several additional tables in an appendix as well as an Excel file on our OSF page titled "Supplemental screening tables".
- ¹⁰ Our initial analysis plan indicated that we would collect data from a departmental participant pool through an online survey identical to our earlier procedures. However, several researchers in the authors' home department had expressed concern with the quality of data collected in this way. We then petitioned the editorial board at *Collabra* to allow us to collect the data in a laboratory setting on laptop computers. This change was approved. However, nearly all of the department's research laptops had not been serviced in several years and were found to be inoperable. We then returned to our initial method for collecting this data. Again, the departmental participant pool data is not included in the results reported here. We should also point out that in the preregistered version of this manuscript we had initially stated that we would collect data from a "SONA" participant pool. This description is unclear since SONA is the name of the software package that the department uses to manage the pool.
- ¹¹ Two changes were made in this paragraph from the original, preregistered manuscript. Originally, we stated that we would interpret significance levels similarly to other analyses when we should have said identically. Second, the word "not" was omitted from the final sentence, resulting in a nonsensical conclusion to be drawn from the test.

Additional File

The additional file for this article can be found as follows:

- **Appendix A.** Supplemental Tables. DOI: <https://doi.org/10.1525/collabra.172.s1>

Competing Interests

The authors have no competing interests to declare.

Author Contributions

- Contributed to conception and design: DT
- Contributed to acquisition of data: DT, JH
- Contributed to analysis and interpretation of data: DT
- Drafted and/or revised the article: DT
- Approved the submitted version for publication: DT, JH

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How to cite this article: Tamul, D. J., & Hotter, J. C. (2019). Exploring Mechanisms of Narrative Persuasion in a News Context: The Role of Narrative Structure, Perceived Similarity, Stigma, and Affect in Changing Attitudes. *Collabra: Psychology*, 5(1): 51. DOI: <https://doi.org/10.1525/collabra.172>

Senior Editor: Simine Vazire

Editor: Chris Chambers

Submitted: 29 May 2018 **Accepted:** 27 September 2019 **Published:** 28 October 2019

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