

Narrative Appeals

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One of the most ubiquitous and fundamental characteristics of being human, the telling of narratives is present in every age, geographic location, and society. A narrative, or story, may evoke a strong psychological response as well as a powerful behavioral change with its unique appeal to the audience in various media. In an extreme example, the 1938 radio drama of H. G. Wells's 1898 novel *The War of the Worlds* prompted many listeners to call emergency numbers, believing that an actual Martian invasion was in progress, and also inspired the invention of liquid-fueled rockets, culminating in the Apollo 11 moon landing in 1969. Similarly, J. K. Rowling's highly successful *Harry Potter* series has absorbed readers into a magical world and has led to worldwide fan conventions and iconic landmark tours.

Narratives: definition and components

Narratives originated from ancient oral cultures where people shared stories as life experiences. A simple definition considers a narrative as two or more events arranged in a chronological or causal sequence. A more comprehensive definition considers a narrative as “any cohesive and coherent story with an identifiable beginning, middle, and end that provides information about the scene, characters, and conflict, raises unanswered questions or unresolved conflict; and provides resolution” (Hinyard & Kreuter, 2007, p. 778).

Characters and plots are the primary components of narrative and are important determinants of its immersive quality. The characters are a major structural property and driving force of a narrative, serving as an internal source of information or beliefs. As described by social cognitive theory, characters also function as role models. The plot, or the “narrative discourse,” is how the story is conveyed. The plot also plays a pivotal role in story delivery by organizing events into a logically unfolding (often temporal) series of events.

Narratives have a strong potential for health promotion by influencing cognition, affect, and behavior through transportation, the unique immersive quality that enables the suspension of disbelief, instills vivid personal experience, and creates deep affection for characters (Green & Brock, 2000). Transportation has been conceptually related to terms such as flow, involvement, immersion, absorption, and engagement. While the exact distinction of these terms is beyond the scope of this entry, transportation is specifically relevant to the appeal of narrative messages to “transport” the audience

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into an alternative world constructed by the narrative and make them temporarily less engaged with their real-world surroundings.

Interaction with narrative characters

There are multiple ways through which a person can interact with characters from a narrative. *Interpersonal attraction* is traditionally defined as a positive evaluation, sentiment, attitude, or evaluative orientation toward a person. An attractive narrative character would help the audience like them more and potentially form some positive evaluation of the narrative experience. Similarly, *likability*, or to what extent a character can bring about a favorable evaluation from an audience member, has been often discussed as a relevant mechanism in explaining narrative effects, especially enjoyment. For example, from the disposition theories' perspective, audiences' enjoyment increases when their liked characters experience positive outcomes or their disliked characters experience negative outcomes. Likewise, enjoyment will decrease when liked characters experience negative outcomes or disliked characters experience positive outcomes.

Similarity usually refers to the degree to which two individuals are alike with regard to some attributes. Similarity is often used interchangeably with "*homophily*." People are more likely to be engaged in narratives when they share similar experiences, knowledge, or background with a narrative character. Despite the fact that there are multiple explanations for the source similarity effect such as similarity attractive model, source similarity as information, social comparison theory, consistency theory, classical conditioning logic, and self-serving bias, these theoretical perspectives share two things in common. One, similarity innately involves a certain level of self versus others contrast, with the self never being lost in this process. Two, as long as the audience's self-concept is not threatened, similarity should result in a positive evaluation of the character and increased interpersonal attraction, both of which should facilitate the processing and engagement of narratives.

Parasocial interaction refers to the psychological relationship an audience member may have in their mind with a certain media persona. The media persona can be anyone in and out of the narrative production, for example, characters in a narrative, actors performing the character's role, or celebrities featured as the character. The audience member may see the media persona as their friend and thus develop a one-sided friendship that exhibits some of the characteristics of interpersonal relationships.

Identification refers to a psychological process through which an audience member assimilates the identity, goals, perspective, and other properties of a character. During the identification process, which tends to overlap with the narrative engagement process, audience members will temporarily lose their self-awareness and take on the character's role, sharing their perspective, thoughts, and feelings.

Identification differs from interpersonal attraction, similarity, and parasocial interaction in that identification implies the loss of self-identity to that of a media character while the other terms assume that the self is a separate and individual entity. Identification should also be distinguished from *wishful identification*, which refers to the desire

to become or mimic the actions of a narrative character. The audience will not lose their self-awareness during this process as this type of interaction does not require the empathic response or perspective-taking. Instead, this type of interaction can extend beyond the temporary narrative experience as can interpersonal attraction and parasocial interaction.

Narrative persuasion theories and measurement

One of the most well-known and empirically demonstrated theories is the transportation-imagery model (Green & Brock, 2002). This theory argues that narratives persuade people through transportation. The term transportation was adapted from the phenomenological experience of people's engagement with narratives as a process in which people seem to have traveled into the story world and get changed by the journey. In their seminal work, Green and Brock (2000) conceptualized transportation into a narrative world as "a distinct mental process, an integrative melding of attention, imagery, and feeling" (p. 701). Transportation is a highly involving and integrative process whereby the cognitive and affective resources are concentrated. In other words, people who have been transported into a narrative world from their real world will be likely to experience attitude changes more consistent with the stories than those who are less immersed in the narrative world.

The transportation-imagery model is conceptually different from dual-processing models such as the elaboration likelihood model (ELM) and the heuristic-systematic model as the latter were developed to explain how people process traditional persuasive messages. According to the dual-processing models of persuasion, there are two routes for people to process persuasive messages: the central/systematic route, which occurs when people are engaged in high elaboration with higher attention and stronger attitude change, or the peripheral/heuristic route, occurring when people devote less attention with a weaker attitude change. However, while they are valuable in explaining the persuasive effects of traditional didactic messages, the dual-processing models alone could not reliably explain people's processing of narratives.

The extended-elaboration likelihood model (E-ELM; Slater & Rouner, 2002) attempts to address this issue. More specifically, the E-ELM focuses on the processing of entertainment narratives and posits that the processing of this narrative content is driven by audiences' engagement with the character and plot, and the persuasive effect is dependent on their absorption, or involvement, into the media content. In other words, the increased engagement of the audience members is predicted to generate more positive thoughts related to the persuasive message embedded within a narrative. This process is different from the traditional dual-processing models of persuasion, and further empirical exploration of the exact mechanism is warranted.

Most of the methods for measuring transportation have utilized surveys developed among college students and later extended to broader populations. Green and Brock (2000) developed and validated a 15-item psychometric scale for narrative transportation. Of the 15 items, 11 are for transportation, and four are for imagery of a certain

narrative. They showed that narrative transportation is the mechanism whereby textual narratives persuade people.

Narrative engagement is a similar concept to narrative transportation. It is a process of constructing mental models of narrative events (Busselle & Bilandzic, 2009). While narrative engagement tends to be highly correlated with narrative transportation, it includes four dimensions: narrative understanding, attentional focus, emotional engagement, and narrative presence. Busselle and Bilandzic (2009) developed a 12-item narrative engagement scale that encompasses these four dimensions. The transportation scale and the narrative engagement scales have been found to be highly correlated. Depending on the specific aspect of the narrative experience they wish to assess, people may choose which scale(s) to incorporate for audience response. Both scales were later adapted for children between the ages of 8 and 12 and received good to excellent reliability values (Lu et al., 2016; Sousa et al., 2020).

Mechanism and moderators of narrative persuasion

Multiple mechanisms help to explain the narrative persuasion effect. First, narrative transportation (Green & Brock, 2002), narrative engagement (Busselle & Bilandzic, 2009), as well as identification with characters have been studied as mechanisms of narrative's persuasive effects and tested extensively in the communication and media research literature.

Second, suspension of disbelief, the reduction of counterarguments (Slater & Rouner, 2002), and resistance to persuasion (Moyer-Gusé, 2008) have also been explored. When a person consciously or unconsciously suppresses their doubt about some of the story elements, the cognitive capacity already may be fully committed to processing events and thus lacks sufficient mental resources to counterargue or resist the persuasive attempt. Similarly, the process of narrative engagement would also potentially exhaust cognitive resources that might otherwise help generate counterarguments and resistance to persuasion. To a certain extent, the audience may get lost in a story and later unconsciously form story-consistent ideas and beliefs after the transportation experience.

The third potential mechanism is through the creation of a deep connection with characters. The audience-character interaction may make the story more personally relevant. Indeed, character and plot are the main components of a narrative and are important determinants of its immersive quality. A character is a crucial structural property, which provides the driving force of a narrative and serves as an "internal" source of information or beliefs. As the previous section elaborated, multiple ways of character engagement are possible, depending on the audience member's degree of assumption of the narrative self-concept. Indeed, the extent to which the self-concept is absorbed can be very different from person to person and may help enhance or reduce the transportation process. Some researchers have even suggested that people's self-concept can be temporarily changed to be similar to that of the narrative characters. It is likely that the audience could alternate their self-concept between the narrative characters and their own.

Last but not least, the narrative experience can become a personal experience. When a person feels as if they have personally experienced the events depicted in a narrative, the perspectives about relevant events should change more in accordance with the narrative. For example, President Ronald Reagan recounted a heroic pilot's deed during World War II as an actual event. The story he told, however, was later revealed as coming from the popular wartime fictional film *A Wing and a Prayer*. When a first-person narrative offers vivid details intertwined with some intriguing plot, an individual may even misremember the narrative experience as real, as President Reagan did. Direct experience with attitude objects usually results in stronger and more enduring attitudes.

Like any persuasive message, narratives do not always work for everyone. There are multiple moderating factors that may modify the force of the narrative persuasion. In terms of the audience, four potential factors have been investigated. *Transportability* refers to the likelihood of a person to be transported into a narrative. Accordingly, narrative persuasion will be optimized for those who are highly transportable. *Need for affect* refers to one's disposition to experience emotions, the affective counterpart of the need for cognition. People who are high in need for affect are more likely to experience transportation and to be persuaded by the narrative message. *Need for cognition* refers to one's disposition to effortful cognitive processing. Interestingly, while it may sound reasonable that people who are high in need for cognition are more likely to be transported into narratives, recent studies have only reported inconclusive results. Additional studies are needed to elaborate on the role of this moderator. Last but not least, the audience's *prior knowledge* and *familiarity* with the narrative content may also enhance the transportation effect.

In addition to those factors pertaining to the audience factor, several factors may also influence the narrative's persuasion effect. For example, higher *narrative quality* (e.g., production quality) may enhance the transportation effect. *Co-viewing* with someone else who is enthusiastic about the narrative content would increase the transportation effect. Narratives with *first-person perspective* may also increase the persuasion effect.

Narratives and behavior change theories

The potential of using narratives for health behavior change can be partly explained by synergies of narrative with several widely used behavioral change theories: theory of planned behavior, social cognitive theory, and self-determination theory. Specifically, the theory of planned behavior posits that a person's behavior is a function of the intention to perform that behavior, which in turn is a function of the attitude toward performing the behavior, subjective norms, and perceived behavioral control. With narrative's immersive qualities, stories may make health behavior change seem fun (changing attitudes), may show other characters engaged in the same behavior (which may affect social norms), and can make the behavior seem easy to do (increasing perceived behavioral control), thus inducing a more positive attitude, more positive subjective norms, and greater perceived behavioral control toward performing healthy behaviors.

Social cognitive theory highlights observational learning, or vicarious knowledge acquisition from the social environment, as a primary source of information. A narrative has the potential through character actions to convey observational learning, to model effective behaviors, to communicate useful strategies, and to demonstrate the use of those strategies, thus enhancing the audience's self-efficacy (the belief in one's capability to achieve different levels of performance), a key construct of social cognitive theory and a similar concept to perceived behavioral control in the theory of planned behavior. A narrative can also offer multiple vicarious experiences to the audience to show the consequences of undesirable compared to desirable behaviors.

Self-determination theory considers human behavior to be driven by autonomous and controlled motivation. Narrative enjoyment can be an intrinsically rewarding activity sought by people independent of extrinsic rewards by providing intriguing internal incentives for audiences who feel immersed in the story in the role of characters. Embedding narratives into behavioral change intervention could potentially promote the development of autonomous motivation to complete the intervention and adopt the desired behavior change.

Narratives for (actual) behavior change: some initial empirical evidence

These theoretical perspectives show the narrative's strong potential for health behavior change. Recent decades have also seen many empirical studies conducted on the persuasive effect of narrative in health communication. A recent review of 153 experimental studies (de Graaf, Sanders, & Hoeken, 2016) on narrative persuasion showed that displaying healthy behavior in a narrative may be correlated with behavioral intention. Narratives with high emotional content are more likely to have significant effects. For print narratives, a first-person perspective could be a promising characteristic. Regarding context, an overtly persuasive presentation format does not seem to inhibit narrative persuasion. Other characteristics such as character similarity or the medium that presents narratives do not seem promising for producing health effects. In another meta-analysis that investigated narrative game-based intervention (Zhou et al., 2020), the interventions have been found to be effective in changing behaviors, knowledge, self-efficacy, and enjoyment. The effects were moderated by the game and story genre, group play, and participant age.

Most of the studies, especially those from communication and media, have used self-reported measures as a proxy for behavioral assessment. In terms of objectively measured behavior change, most empirical studies (except one on medical training in trauma triage) have focused on physical activity promotion via active video games (or exergames that require players' exercise).

The main reason for this tendency is that, while many active video games can induce moderate-to-vigorous physical activities, most of them do not have accompanying narratives, which might result in less of a behavioral impact. Thus, effective creation and integration of an engaging narrative and rigorous testing of the narrative's behavioral effect become necessary. Several recent studies indicated that, as long as narratives have

been created to be audience friendly and integrated seamlessly into the active video games (AVG), thus making a narrative version of the same game, the narrative AVG consistently had higher step counts and moderate to vigorous physical activity after narrative exposure than the non-narrative AVG. The effects were not due to mere video addition but rather the narrative per se and were mediated by self-reported narrative immersion (Lu et al., 2016; Sousa et al., 2020).

Future directions

The advancement of media technology in the form of video games has created numerous opportunities for narratives to be better woven with the digital products and in addition to help amplify the foundational mechanisms of narrative persuasion and the health effect.

For example, the interactive nature of video games enhances players' engagement with the narrative characters through increased character identification, interpersonal attraction, and parasocial interaction. An appealing plot helps players go beyond the spectator level to become active participants and fosters a greater engagement with the plot through gameplay. Recent gaming technology has made it possible to integrate narrative into the gaming process and has offered players extensive control over story development. For example, the *Walking Dead* series (2012–2019) by Telltale Games is an interactive narrative that allows players to decide how the story would progress with different actions and choices, resulting in different plots and endings for players. Accordingly, the popularity of video games has made it possible for extended engagement with interactive narratives with fictional elements. Therefore, video games with involving narratives could provide an innovative medium for players that is easy to process, engaging to follow, and fun to experience. Through the interactive control, the characters will become more likable and relatable to the players and potentially may even serve as role models for them to engage in health behaviors.

An engaging health game with appealing characters and plots could induce a strong intrinsic motivation for behavior change by reducing cognitive load through immersive qualities, engendering positive and powerful arousal and attention, enhancing character identification, and absorbing players in a story world. The gameplay experience, once integrated with narratives, would internalize reward mechanisms within the players and in turn would help foster the perception of behavior change as *necessary*.

Systematic and rigorous empirical investigations in enhancing our understanding of the mechanisms of narrative persuasion and behavior change should help us realize the powerful potential of narratives.

SEE ALSO: Digital Media Use, Impact on Well-being; eHealth; Elaboration Likelihood Model; Entertainment-Education (Effects); Entertainment-Education (Overall); Experimental Research: Nonclinical; Games/Gaming for Health; Identification/Parasocial Interaction Theory; Intervention Research; Media Psychology;

Narrative Theory; Obesity; Persuasive Technologies for Health; Physical Activity/Exercise; Public Health; Resistance; Social Cognitive Theory; Technology: Health Outcomes; Thematic Analysis; Theories of Reasoned Action and Planned Behavior.

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