Audiovisual Advertising: Effects of Music on Psychological Transportation and Narrative Persuasion

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Abstract

Narrative advertisements (i.e., ads that resemble short films that include characters, drama, and plot structure) are increasingly popular on TV and on the Internet. As in almost any film, music can play a vital role in the experience and impact of narrative ads. This chapter identifies *psychological* *transportation* as an important mediator between music and persuasion by narrative ads. Transportation refers to a strong emotional and cognitive involvement in the ad, a sense of being “lost” in the narrative. The literature on psychological transportation shows that transportation plays a mediating role in various aspects of persuasion, such as changing viewers’ beliefs, attitudes, and even behavior. This chapter begins with an overview of the literature on psychological transportation, focusing on its essential elements, moderating factors, and consequences for persuasion. I then discuss the intriguing possibility that music plays an important role in promoting psychological transportation into narrative ads, and review initial experimental evidence supporting this idea. Special attention will be paid to the role of “moving” (i.e., intensely emotional and chills-evoking) music, as it appears to be particularly effective in eliciting psychological transportation. Finally, the chapter closes with some enduring questions that need to be addressed in future studies, and identifies some exciting avenues to further explore the role of music in psychological transportation and persuasion by narrative ads.

**KEYWORDS:**

Music, television advertising, audiovisual, narrative transportation, persuasion, emotion, chills.

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One of the most moving television advertisements of 2016 was the “Injured Tiger” ad released by the World Wildlife Fund (WWF). In the ad, an ordinary family with two small children is surprised to find a full-grown tiger in the parents’ bed. They soon discover the tiger has a badly injured leg, and decide to take care of it. They nurse it, feed it, and read to it until one day the tiger is strong enough to stand up and walk. In the end, the family—with the little daughter in tears—waves goodbye to the tiger as it returns to the jungle. Many viewers commented on the Internet that the story had moved them, or even brought them to tears. But was it just the story that touched them? Or did the background music also play a role? Indeed, besides a moving story, the ad featured a beautiful score with piano and strings, which was moving in its own right. Yet, most viewers were not aware of the music itself; it blended into their experience of the visuals.

As the example illustrates, music is often used to support the storyline of ads. Music is often heard in the background, and not experienced as separate from the visuals. But to what effect? Does the music increase the persuasive power of the ad, and if so, via which psychological mechanisms? These are the main questions addressed in this chapter.

**Transportation into a narrative world**

The aim of advertising is to persuade consumers to support, like, or buy something. General persuasion models like the Elaboration Likelihood Model (ELM, Petty & Wegener, 1999) and the Heuristic-Systematic Model (HSM, Chen & Chaiken, 1999) are the leading models for describing the psychological mechanisms through which persuasive messages exert their influence. However, these models are less appropriate for describing the persuasive effect of being “lost” in a narrative advertisement such as the WWF ad. According to general persuasion models, the cognitive mechanism underlying persuasion under high involvement is *elaboration*, the critical thought about the persuasive arguments presented in the ad. This contrasts sharply to being lost in a story, which, albeit being a high-involvement state, is typically characterized by a reduction of critical thought (for an elaborate comparison between the two mechanisms see Slater & Rouner, 2002).

In psychology and communication research, the experience of being lost in a story is referred to as *psychological transportation*. It is an immersive mental state in which attention, imagery, and emotions are completely focused on the events occurring in the story (e.g., Green, 2004; Green & Brock, 2000). The term transportation was coined by Richard Gerrig (1993), who compared the narrative experience to traveling. He noted that when people are immersed in a story, they mentally travel to the narrative world, and temporarily lose contact with the world of origin. Eventually they return home, somewhat changed by the journey. Similar to elaboration in the ELM tradition, transportation generates long-lasting persuasive effects. The persuasive impact of transportation into a story can even increase over time. Immediately after reading or viewing a fictional story, people may discount it as “just fiction,” but the discounting effect diminishes over time, causing a delayed persuasive effect (i.e., a “sleeper effect,” Appel & Richter, 2007).

 Transportation resembles other kinds of immersive states. For example, it shares features with *flow* (Csikszentmihalyi, 1990), an immersive state that people experience when they engage in an activity that is both highly interesting and appropriately challenging to their skill level. Transportation relates to, but is broader than specific narrative responses like *curiosity* (Loewenstein, 1994), *identification* (Mar & Oatley, 2008), *presence* (Lombard & Ditton, 1997), and *suspense* (Bezdek & Gerrig, 2017; Zillmann, 1991), and closely resembles the concept of *narrative engagement* (Busselle & Bilandzic, 2008, 2009). However, transportation is narrower than *involvement*, which captures a wider range of active, in-depth processing of media content, not only stories (Wirth, 2006). The level of transportation is often measured with the Transportation Scale (Green & Brock, 2000), a questionnaire consisting of 11 fixed statements (e.g., “I was mentally involved in the narrative while reading it”), and a varying number of story-specific statements (e.g., “While reading the narrative I had a vivid image of [story character]”), to which participants indicate their agreement on 7-point Likert scales. There is also a shorter, six-item version of the scale (Appel, Gnambs, Richter, & Green, 2015). Although most research on transportation focuses on written narratives, transportation also happens in music and in films. In line with the empirical literature in this area, I use the terms “psychological transportation” and “narrative transportation” interchangeably, referring to the same state.

Transportation is an important concept for advertising because many ads have a narrative form, that is, they include protagonists, drama, and a plot line (Escalas, 1998). By now, numerous studies have shown that transportation into stories mediates important persuasive outcomes, such as changes in emotions, beliefs, attitudes, and behavior (for meta-analyses see Braddock & Dillard, 2016; Shen, Sheer, & Li, 2015; Van Laer, De Ruyter, Visconti, & Wetzels, 2014). For example, in one of the first studies on transportation, participants read a story about a murder by a psychiatric patient (“Murder at the Mall”). Afterward, those who had been highly transported in the story gave higher estimations of street violence and agreed more with statements implying that the freedom of psychiatric patients should be restricted than participants who were less transported in the story (Green & Brock, 2000). Hence, the study provided the first evidence that transportation into stories is associated with changes in real-world beliefs. Subsequent studies showed that stronger transportation relates to stronger emotional transformation (e.g., feeling worse after reading a scary story; Green, Chatham, & Sestir, 2012).

Furthermore, transportation in audiovisual ads predicts stronger ad-consistent behavioral intentions (e.g., to donate money to the advertised cause; Strick, De Bruin, De Ruiter, & Jonkers, 2015). Transportation is also associated with reduced resistance and disbelief. Highly transported participants are less likely to identify false information in a text (Green & Brock, 2000), think critically about persuasive arguments (Escalas, 2004; 2007), and infer the advertiser’s manipulative intent (Strick et al., 2015). Interestingly, these persuasive effects emerge independent of whether the story is labeled as fiction or as non-fiction (Green, 2004; Green & Brock, 2000).

Researchers have proposed various explanations for the strong persuasive impact of transportation into stories. First, transportation involves the vivid experience of the events in the story, which can lead to the erroneous remembering of fictional events as real, making them more impactful (Johnson, Hashtroudi, & Lindsay, 1993). Second, people like the experience of being transported in a story, and this positive mood state creates a positive attitude towards the advertised issue or product. Paradoxically, people even enjoy being immersed in stories that elicit negative emotions, as it creates a pleasant distraction from daily activities (“the sad film paradox,” Hanich, Wagner, Shah, Jacobsen, & Menninghaus, 2014). Furthermore, when the quality of the story is high, positive aesthetic emotions may combine with negative emotions to create an overall more positive emotion (Miall & Kuiken, 2002). Third, the mental processes underlying resistance to persuasion, such as counterarguing (Green & Brock, 2000) and the validation of information (Richter, Schroeder, & Wöhrmann, 2009; Schroeder, Richter, & Hoever, 2008) require considerable cognitive resources. As transportation is an immersive state, it leaves few cognitive resources available for sustaining resistance.

**The role of emotion in narrative transportation**

Emotional involvement is crucial for the impact of narrative ads. Indeed, one item on the Transportation Scale asks to what extent the reader (or viewer) was “emotionally affected” by the story. As the emotional involvement in a story increases, so does the level of transportation. For example, Green and colleagues (2012) measured participants’ mood states before and after they read a scary story. They found that when the pre-existing mood state of the participants matched the emotional tone of the story (e.g., when participants are already anxious before they start reading the scary story) the readers were more transported into the story. Transportation, in turn, predicted a stronger emotional impact of the story, that is, a larger story-consistent change from the pre-measure to the post-measure (i.e., in case of the scary story, a negative mood change). These effects were replicated for a cheerful story. Apparently, being “in the mood” for a story increases its emotional impact, and consequently the level to which perceivers are transported and transformed by it.

The impact of the perceivers’ *need for affect*, or the motivation to approach or avoid emotion-inducing situations (Maio & Esses, 2001), further illustrates the important role of emotion in transportation. Need for affect is the emotional counterpart of the *need for cognition*, the extent to which people enjoy effortful cognitive activity (Cacioppo & Petty, 1982). Although people generally prefer experiencing positive emotions to experiencing negative emotions, studies on the need for affect show that people also differ in their enjoyment of experiencing emotions in general. The need for affect is a stable aspect of personality that can be measured with a self-report questionnaire known as the Need for Affect Scale (Maio & Esses, 2001). The original 26-item scale consists of 13 approach-related items (e.g., “It is important for me to be in touch with my feelings”) and 13 avoidance-related items (e.g., “I do not know how to handle my emotions, so I avoid them”), but there is also a shortened, 10-item version (Appel, Gnambs, & Maio, 2012).

 People who have a higher need for affect tend to experience emotions more intensely, and accordingly, are more strongly transported into stories than people who are lower in the need for affect. In a study by Appel and Richter (2010), half of the participants read the “Murder at the Mall” story discussed earlier, while the other half of the participants read a control story (a lighthearted, unmoving story about a couple having dinner at a fancy hotel, which did not contain any references to homicide or psychiatric patients). Afterward, participants’ need for affect was measured. The need for affect related to stronger persuasive effects of the “Murder at the Mall” story (e.g., stronger agreement with statements implying that the freedom of psychiatric patients should be restricted). Further analysis showed that this effect was mediated by transportation. Hence, participants with a relatively high need for affect were more persuaded by the “Murder at the Mall” story than participants with a relatively low need for affect *because* they were more transported into the story. As expected, the need for affect did not predict transportation and agreement with the statements among participants who read the control story.

A follow-up study confirmed that the need for affect only predicts stronger transportation and persuasion when stories are emotional. The researchers presented half of the participants with a highly emotional (sad) story illustrating the importance of organ donation, and the other half with a non-emotional version of that story. The results showed that participants with a relatively high need for affect were more persuaded by the highly emotional story than the participants with a relatively low need for affect, and again, this effect was mediated by transportation into the story. Interestingly, emotional content was counterproductive for participants with a relatively low need for affect. The emotional version of the story was *less* persuasive to them than the non-emotional version. I will return to this potentially counterproductive effect of emotion in the discussion.

In summary, the research reviewed so far shows that emotional involvement is an essential part of psychological transportation. To the extent that people are emotionally moved by a story, they experience greater psychological transportation and persuasion.

**The emotional impact of music**

Several factors that increase the emotional impact of a story have been identified in the literature, such as portraying deeply-rooted human values and needs (Cova & Deonna, 2014; Seibt, Schubert, Zickfeld, & Fiske, 2017; Strick & Van Soolingen, 2017), strong identification with the characters (J. Cohen, 2001), and the artistic quality of the story (Djikic, Oatley, Zoeterman, & Peterson, 2009). The factor highlighted in this chapter, however, is the role of music in psychological transportation, particularly in advertising.

Music has a privileged pathway to emotional experience. The emotional impact of music is so powerful that it can be observed physically. A physiological response that recently attracted a lot of research attention is “*chills*,” a sense of tingling or tickling that is sometimes accompanied by goosebumps (Maruskin, Thrash, & Elliot, 2012). Although chills can be evoked by a range of stimuli, varying from physical exercise to a movie scene, music has been shown to be the strongest elicitor of chills (Goldstein, 1980; Nusbaum & Silvia, 2011; Panksepp, 1995; Silvia & Nusbaum, 2011). The characteristics of chills-evoking music are not yet fully understood, but Sloboda (1991) noted that transitional points in music, such as a sudden change in harmony or dramatic crescendos, are particularly likely to evoke chills. Furthermore, a study by Panksepp (1995) suggested that chills are more prevalent for sad than happy music, particularly in females. Nonetheless, the experience of chills in response to aesthetic stimuli is generally experienced as very pleasurable (Blood & Zatorre, 2001), and tends to feel highly personally significant. As noted philosopher Jenefer Robinson put it: “It’s not just the six-four chord in D flat that I heard but the reconciliation of man and nature, the voice of God, or the cry from *outre-tombe* of a long-lost beloved” (Robinson, 2005, p. 406).

Research shows that the occurrence of chills, in response to both music and other chills-eliciting stimuli, differs greatly between people. Although chills are a universal response found in all cultures of the world (McCrae, 2007), about half of the population never experiences them (Goldstein, 1980). This large variation between people suggest that chill responses are subject to personality differences. Indeed, recent studies suggest that *openness to experience* is a strong predictor of the ability to experience chills. Openness to experience is one of the Big Five dimensions of personality, along with conscientiousness, agreeableness, neuroticism, and extraversion. It refers to a structurally larger breadth, depth, and permeability of experience, as well as to a recurrent need to expand and analyze experience (McCrae & Costa, 1997). People who are high in openness tend to be tolerant of ambiguity. They can make remote and unusual associations, and are characterized as being innovative, imaginative, and curious.

Openness to experience is measured with the Revised NEO Personality Inventory (NEO-PI-R). One item in the openness subscale is “Sometimes when I am reading poetry or looking at a work of art, I feel a chill or wave of excitement,” which already suggests overlap between openness and the capacity to experience chills. Indeed, research in 51 countries showed that this particular item is often the most diagnostic of the openness subscale, which has led researchers to conclude that chills may be a universal marker of openness to experience (McCrae, 2007). Although openness may be the most prominent Big Five correlate of chills, other researchers have found positive relationships with agreeableness, extraversion, and (more surprisingly) neuroticism (Panksepp, 1995; Rickard, 2004; Silvia & Nusbaum, 2011). One reason for these mixed findings could be that researchers often did not distinguish between different types of chills. By now, researchers have identified two fundamentally different types of chills: chills related to pleasure and chills related to aversion (Maruskin et al., 2012). It is possible that people who are high in openness to experience, agreeableness, and extraversion tend to experience pleasurable chills, while people who are high in neuroticism tend to experience aversive chills.

**Music and narrative transportation in advertising**

So far, I have discussed two fields of research that have largely led independent lives. On the one hand, there is the research on narrative transportation, which shows that transportation into stories has a strong effect on persuasion, and this particularly happens when the story is emotionally impactful. On the other hand, there is the literature on music, which shows that music has a powerful effect on emotion, which is manifested both mentally (experiencing pleasure) and physically (getting the chills). A fruitful next step would be to combine these fields of research by investigating the role of music in narrative transportation. Can music increase the emotional impact of a story? Does this increase psychological transportation and persuasion, and if so, when does this happen? Are some audiences more susceptible to this influence than others, and could it also backfire? Examining these questions is important for both scientists and practitioners in the field of advertising, as the combination of storytelling and music is very common in modern advertising.

A content analysis of international TV ads and showed that 89% of the ads used music (Appelbaum & Halliburton, 1993), and another analysis found that 94% of US prime-time TV ads contains music (Allan, 2008). The impact of music in advertising has been the topic of many scientific studies. In general, the findings indicate that music can have a positive influence on persuasion if it has a good fit with the advertising message. Previous research identified several psychological mechanisms through which this positive influence occurs, like classical conditioning (e.g., Gorn, 1982), increased positive mood (e.g., Alpert & Alpert, 1990; Alpert, Alpert, & Maltz, 2005), positive beliefs about the product (e.g., Middlestadt, Fishbein, & Chan, 1994), behavioral priming (North, Hargreaves, & McKendrick, 1999), and enhanced message processing (MacInnis & Park, 1991; North, MacKenzie, & Law, 2004). However, previous studies have not addressed narrative advertising specifically, or the possible role of music in psychological transportation. Experimental research has only recently started to address this possibility, and these new findings will be discussed below. First, I will discuss why music may increase viewers’ transportation into a story.

Provided that the timing and emotional tone of the music fit the events unfolding on screen, music can serve an important role in supporting the emotional impact of a story, for example by augmenting the rising tension, illustrating the meaning of key scenes, and intensifying the climax. Given the important role of emotion in transportation, the effect is likely stronger when the music is emotionally moving rather than not moving (cf. Appel & Richter, 2010; Green & Brock, 2000). A crucial aspect is that viewers do not detect the background music as distinct from the visuals; it enhances the experience of the story by blending into the visuals (A. J. Cohen, 2001). Consequently, viewers may misattribute the emotional arousal elicited by moving music to the events occurring in the story.

This misattribution of emotional arousal from the music to the story can be linked to the literature on ‘excitation transfer’ (Bryant & Miron, 2003). This research shows that the emotional arousal elicited by one stimulus can be misattributed to another stimulus, particularly when the source of arousal is unclear (Bryant & Miron, 2003). The theory of excitation-transfer has been extensively applied to media messages. For example, in a study by Gorn, Pham, and Sin (2001) participants watched an ad with a clearly positive or negative emotional tone. Before watching the ad, participants listened to music that, according to a pilot test, was either highly arousing and pleasant, highly arousing and unpleasant, low arousing and pleasant, or low arousing and unpleasant. The results showed that the emotional impact of the ad was stronger when highly arousing music preceded the ad than when low-arousal music preceded the ad. Interestingly, this effect was found independent of whether the emotional tone of the music fitted the emotional tone of the ad or not. Thus, highly arousing pleasant and unpleasant music were equally effective in increasing the emotional impact of the positively-toned ad (and the same applied to the negatively-toned ad).

When applied to moving music in narrative advertising, these results imply that emotionally moving music (given its highly arousing nature) should increase the emotional response to narrative ads. This, in turn, should lead to more transportation and persuasion. Note, however, that the research on excitation transfer does not completely map onto narrative advertising. Although the emotional fit between the music and the story was found to be unimportant for excitation transfer, it is probably highly important for music in narrative advertising. This is because in narrative advertising, the music is typically heard *during* ad viewing, not *before* ad viewing. A lack of fit between the music and the story will then become very salient and spoil the holistic experience of the ad. Presumably, then, moving music in narrative advertising needs to fit the emotional tone of the story to increase transportation and persuasion. This point will be addressed later in the chapter.

**Experimental evidence for the role of music in transportation in film**

Recent studies have provided initial evidence for the purported role of music in psychological transportation. Some of this research focused on *absorption*, a mechanism similar to transportation that is measured with a single item asking viewers how absorbed they were in the film (Cohen, MacMillan, & Drew, 2006). Cohen and colleagues used two 1-minute film clips. For each clip, three versions were produced: a version with sound effects (sounds matching the scene, e.g., running water, a ticking clock), a version with speech effects (i.e., dialogue that could be attributed to the characters on screen), and a version with a musical soundtrack. Each participant only viewed one version of each film clip. Overall, the results suggested that music elicited more absorption than sound effects or speech effects, although this effect was only found for one of the two films.

In another study, Cohen and Siau (2008) examined the influence of music on absorption using a behavioral measure. They reasoned that if appropriate music increases viewers’ absorption in a film, they should be slower and less accurate in detecting a stimulus that is extraneous to the film. To test their hypothesis, they embedded 20 extraneous ‘X’ in the corners of frames of a short film. The film was shown under three conditions: with appropriate music (i.e., the original score), with inappropriate music, and with no music. The film was shown twice, and on the second screening the authors found the expected effect: detection of the X’s slowed down in the appropriate music condition compared to the no-music condition. The inappropriate music condition fell in between, likely because this music was appropriate to some parts of the film.

 Costabile and Terman (2013) were the first to test the hypothesis that music increases psychological transportation into film. For advertising purposes, it was very interesting that the authors went on to examine how this increased level of transportation affected viewers’ beliefs and attitudes towards the protagonist and the events in the film. Participants viewed a short film depicting a woman’s consideration and eventual decision to take her terminally ill husband off life support. Sitting by his hospital bed, she remembers how they met, how they courted, and other intimate moments of their loving relationship. The film was shown either with the original musical soundtrack or with the soundtrack muted. In line with the authors’ predictions, the results showed that participants in the music condition were more transported into the story than participants in the control condition. Crucially, the authors also found that participants in the music condition were more persuaded by the story than participants in the control condition: they had stronger story-consistent beliefs (e.g., that removing someone from life support is acceptable), they liked the protagonist more, and identified with her more than participants in the control condition.

**Experimental evidence for the role of music in transportation in advertising**

Although Costabile and Terman’s (2013) results were found in the context of film—not advertising—they provide important clues as to how music may work in narrative ads. The study showed that by increasing transportation into the story, music elicited story-consistent beliefs, attitudes, and identification. Applied to advertising, the results imply that by increasing transportation, music may elicit positive beliefs and liking towards the advertised cause or product and identification with the source. It may also increase other documented effects associated with transportation, such as a reduction of critical thought. Moreover, according to transportation research, these persuasive effects should be long-lasting.

An important next step, then, was to study the effects of music in the context of narrative advertising. We conducted one of the few studies addressing this issue (Strick et al., 2015, Experiment 1). We tested the assumption proposed above that emotionally moving (i.e., highly emotional and chills-evoking) music triggers more transportation and persuasion than non-moving music. Two narrative ads were used, one with a negative emotional tone and one with a positive emotional tone. Both ads featured an emotional story: the negative ad showed how children copy the bad behavior of their parents (e.g., smoking, littering, being rude); the positive ad depicted an adolescent boy painting a beautiful mural for his ill, bedridden sister. For both ads, a version with moving music and a version with non-moving music was created. In all cases, the emotional tone of the music matched the respective ad (i.e., positive music was chosen for the positive ad, and negative music was chosen for the negative ad). Participants watched the positive or the negative ad, either with moving or non-moving music.

As expected, and as shown in Figure 1, participants who viewed the ad with moving music were more transported into the story than participants who viewed the ad with non-moving music. Thus, we found evidence that emotionally moving, chills-inducing music is indeed more effective in triggering transportation than non-moving music. Furthermore, we tested whether increased transportation led to increased persuasion by measuring (among other things) participants’ behavioral intentions. Participants could indicate their willingness to donate money to the advertised cause and to forward the video to friends in their social network. As depicted in Figure 2, presenting the ad with moving music led to a higher percentage of participants who were willing to donate and, on average, a higher willingness to pass on the video than presenting the ad with non-moving music. These effects were similar for both the positive and the negative ad.

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Together with the study by Costabile and Terman (2013), our study supports the complete theory about music in narrative advertising outlined in this chapter: appropriate music increases transportation into the advertising story, which in turn increases persuasion (i.e., ad-consistent beliefs, liking, identification, and behavioral intentions). Highly emotional and chills-evoking (i.e., moving) music is more effective than non-moving music because it increases the emotional impact of the story, which in turn increases transportation and persuasion.

In a second and third experiment, we further explored the psychological mechanism underlying the relation between narrative transportation and persuasion (Strick et al., 2015, Experiment 2 and 3). We found evidence that transportation increases persuasion by reducing the amount of critical thought. As Figure 3 shows, while being absorbed by the chills-inducing music and visuals, viewers have fewer attentional resources available for thinking about the manipulative intent of the advertiser (see also Escalas, 2004; Green & Brock, 2000). This is an important insight for advertisers, as dealing with consumer resistance is one of their major concerns (Knowles & Linn, 2004).

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Importantly, the identification of this underlying mechanism also points to boundary conditions for using moving music in advertising. Our research identified three conditions in which moving music is *not* effective: a) when viewers become aware of the advertiser’s manipulative intent *after* viewing the ad. This is because at that point, the ad can no longer distract viewers from the advertiser’s manipulative intent; b) when the inference of manipulative intent is extremely low to start with. Under these circumstances, there is no room for moving music to reduce this inference even further; and c) when the inference of manipulative intent is extremely high to start with. Under such conditions, participants may resist the ad to such extent that they will not be transported in the story at all. For advertisers, these results imply that moving music may be ineffective in combination with obvious cues of manipulation like blatant sales pitches or spectacular discounts. I will return to this potential mismatch between “being moved” and the obvious commercial purposes of advertising in the discussion. Finally, and perhaps more surprisingly, moving music may also be ineffective when viewers experience no manipulative intent at all, as there is no room for the music to reduce resistance further.

In summary, our results imply that a highly emotional, chills-evoking (i.e., moving) musical score is a powerful strategy to increase the impact of narrative ads. It increases the emotional impact of the story and the level of transportation. It can reduce feelings of manipulative intent and increase consumers’ behavioral intentions (e.g., to donate for the advertised cause, buy products, or share the ad in their social network). Having said this, the research also pointed to important boundary effects, as described above. Future research may identify additional circumstances under which moving music increases or decreases the persuasive impact of narrative advertising.

**Conclusions and suggestions for future research**

Narrative audiovisual ads, like the WWF ad about the injured tiger, can really “pull us in.” In just one minute or less, we may strongly identify with the characters, imagine ourselves in their situation, and empathize with their emotional responses. Studies have shown that when we are “lost” in narrative ads, we are more likely to be influenced by them. As Gerrig (1993) noted, narrative transportation is like taking a journey, from which the traveler returns somewhat changed. In this chapter, I have presented a theory supporting the notion that background music can significantly enhance narrative transportation and persuasion. Moreover, I have advanced the argument that moving music (i.e., music that elicits intense emotions and “chills”) is particularly effective at triggering narrative transportation and persuasion, because the arousal elicited by the music can be misattributed to the events in the story. The empirical evidence suggests that moving music plays an important role in narrative advertisements as it increases viewers’ emotional response to the story, facilitates transportation, and increases various forms of persuasion. Although the basic claims have been supported in studies reviewed in this chapter, several important questions remain that need to be addressed in future studies.

This chapter highlighted the importance of emotional involvement in narrative transportation. This does not mean, however, that transportation is a purely emotional experience, nor that music fails to affect attentional and cognitive aspects of the narrative experience. Transportation is defined as a holistic experience involving attentional absorption, emotional involvement, reduced cognitive activity, and—in the case of written material— vivid imagery (Gerrig, 1993; Green & Brock, 2000). Recent findings support the view that the cognitive and emotional components of transportation are strongly correlated (Busselle & Bilandzic, 2009; Costabile & Terman, 2013). If this is true, music may not only increase emotional involvement, but also cognitive aspects of transportation, such as attentional absorption, and reduced cognitive activity. Some recent findings already support this view (Strick et al., 2015). However, it would be illuminating if future research further addressed the relationship between the emotional and cognitive components of transportation, and explored how music impacts each of them.

Another question that remains is whether the emotional tone of the music should match the emotional tone of the story. Research on excitation transfer suggests that arousing music can increase the emotional impact of an ad, independent of whether the emotional tone of the music fits the ad or not (Bryant & Miron, 2003; Gorn et al., 2001). This implies that, for example, highly arousing sad music can increase the persuasive impact of a cheerful ad, and vice versa. In contrast, most research on music in advertising suggests that music is only effective when it fits the emotional tone and content of the advertising message (e.g., Kellaris, Cox, & Cox, 1993; MacInnis & Park, 1991; Morris & Boone, 1998; North et al., 2004; Shen & Chen, 2006). It is important to keep in mind that in research on excitation transfer, the music is usually played *before* viewing the ad. In that case, the emotional arousal elicited by the music lingers for some time after the music has stopped (with the listener being typically unaware of it), after which the unconsciously experienced arousal is misattributed to the emotional content of the ad. In contrast, in research on music in advertising, the music is typically played *while* viewing the ad. In such a case, incongruences between the music and the ad message become highly salient, and may cause a negative response or distancing from the narrative. Hence, when music and visuals are presented simultaneously, music likely needs to be matched with the visuals to increase transportation (see also the Congruence-Associationist Model by A. J. Cohen, 2001, 2005).

Looking to the future, it would be interesting to further explore the role of incongruent music. Some film-makers intentionally create incongruities between music and story. For example, the cheerful melody of the song “Stuck in the middle with you” was highly incongruent with one of the most violent scenes in Quentin Tarantino’s film *Reservoir Dogs* (in which a gangster brutally cuts off a cop’s ear). Based on the reasoning above, it is likely that such incompatible music creates emotional distance in the viewer, and lowers transportation. On the other hand, given that the incongruence is highly salient, it may also spark viewers’ interest and compel them to cognitively elaborate on the apparent incongruity (Heckler & Childers, 1992; Houston, Childers, & Heckler, 1987; see also Ireland, 2018). To the extent that viewers succeed in solving the incongruity, coherence of the working narrative is restored, and the viewers may have awakened to a new sense of meaning (for example, in *Reservoir Dogs* a viewer may interpret the cheerful music as embodying the gangster’s aloof attitude about the physical torture, and hence, his cold-bloodedness). This could add complexity and depth to the aesthetic experience. Alternatively, well-placed incongruities can lead to a comic effect, which may also increase ad appreciation and persuasion (e.g., Strick, Holland, Van Baaren, Van Knippenberg, & Dijksterhuis, 2013).

How incongruences affect transportation remains an interesting question for further study. On the one hand, it may reduce narrative transportation, as it interrupts the coherence of the working narrative. On the other hand, as Gerrig (1993) has also postulated, it may increase narrative transportation because it allows viewers to fill in parts of the story themselves.

Future research may also further explore how personality characteristics of viewers, such as need for affect and openness to experience, affect the persuasive influence of music. Studies have shown that people who are high in the need for affect are more likely to be transported into stories, and more likely to be persuaded by them (Appel & Richter, 2010). In line with these findings, it may be the case that people high in the need for affect are also more susceptible to moving music, and are more likely to experience chills. Consequently, moving music may exert a stronger influence on them than on people low in the need for affect. At the same time, openness to experience is a strong predictor of getting the chills from moving music (McCrae, 2007). An obvious next step would be to investigate whether people who are high in openness to experience are more susceptible to the impact of moving music on transportation and narrative persuasion than people low in openness to experience. It is also important to note that moving music may backfire under some circumstances (cf. Appel & Richter, 2010; Strick et al., 2015). One approach to elucidating these circumstances would be to look at demographic variables. People who are high in need for affect and openness to experience tend to be female, young, intelligent, politically liberal, and open to diversity (Maio & Esses, 2001; McCrae, 1996; Leone & Chirumbolo, 2008; Moutafi, Furnham, & Crump, 2006). This suggests that other types of audiences (e.g., males of older age) may resist being emotionally moved, and hence, that moving music in advertising may not work for them.

Another interesting avenue for further research is to investigate whether being moved (by music) is more effective for non-profit than commercial advertising. Current findings and theorizing suggest that “being moved” is a distinct emotion that involves the experience of deep-seated motives like love, courage, and beauty (Seibt et al., 2017; Strick & Van Soolingen, 2017; Zickfeld, Schubert, Seibt, & Fiske, 2019). Consequently, when people are moved, either by music or another stimulus, they feel that the experience is somehow personally significant, as if they are suddenly reminded of their core values (Cova & Deonna, 2014). Indeed, being moved has been found to stimulate pro-social behaviors like helping, consolidating, and being generous (e.g., Fukui & Toyoshima, 2014; Stel, Van Baaren, & Vonk, 2008; see also Steffens, 2018). From this perspective, there may be a mismatch between the “sacred” experience of being moved and the “secular” goal of making profit via commercial advertising. One could therefore hypothesize that moving music generally matches better with non-profit advertising than for-profit advertising, as the former is inherently higher in morality (see Strick et al., 2015, for some preliminary evidence). Alternatively, one could hypothesize that, for moving music to be effective, the advertising message needs to be sufficiently “deep” or inspirational to match the profound experience of being moved.

In summary, music clearly has an important role in narrative advertising, and the research so far has confirmed that music can increase transportation and narrative persuasion. Yet, numerous important questions remain to be answered in future studies, some of which have been highlighted in this chapter. Transportation is currently a thriving field in communication and psychology research. I hope this chapter will spark further exploration on the role of music in this fascinating phenomenon.

Recommended Readings

Appel, M., & Richter, T. (2010). Transportation and need for affect in narrative persuasion. A mediated moderation model. *Media Psychology, 13,* 101-135.

Green, M. C., & Brock, T. C. (2000). The role of transportation in the persuasiveness of public narratives. *Journal of Personality and Social Psychology, 79,* 701–721.

McCrae, R. R. (2007). Aesthetic chills as a universal marker of openness to experience. *Motivation and Emotion, 31*(1), 5-11.

Strick, M., De Bruin, H. L., De Ruiter, L., & Jonkers, W. (2015). Striking the right chord: Emotionally moving music increases psychological transportation and narrative persuasion. *Journal of Experimental Psychology: Applied, 21,* 57-72.

Zickfeld, J. H., Schubert, T. W., Seibt, B., & Fiske, A. P. (2019). *Moving* through the literature: What is the emotion often denoted *being moved*? *Emotion Review.* Advance online publication. Available via https://doi.org/10.1177/1754073918820126

References

Allan, D. (2008). A content analysis of music placement in prime-time television advertising. *Journal of Advertising Research, 48*(3), 404–417.

Alpert, J. I., & Alpert, M. I. (1990). Music influences on mood and purchase intentions. *Psychology & Marketing, 7*(2), 109-133.

Alpert, M. I., Alpert, J. I., & Maltz, E. N. (2005). Purchase occasion influence on the role of music in advertising. *Journal of Business Research, 58*(3), 369-376.

Appel, M., & Richter, T. (2007). Persuasive effects of fictional narratives increase over time. *Media Psychology, 10,* 113–134.

Appel, M., & Richter, T. (2010). Transportation and need for affect in narrative persuasion. A mediated moderation model. *Media Psychology, 13,* 101-135.

Appel, M., Gnambs, T., & Maio, G. (2012). A short measure of the need for affect. *Journal of Personality Assessment, 94,* 418-426.

Appel, M., Gnambs, T., Richter, T., & Green, M. (2015). The Transportation Scale-Short Form (TS-SF). *Media Psychology, 18,* 243-266.

Appelbaum, U., & Halliburton, C. (1993). How to develop international advertising campaigns that work: the example of the European food and beverage sector. *International Journal of Advertising, 12,* 223-241. Retrieved from <http://www.internationaljournalofadvertising.com>

Bezdek, M. A., & Gerrig, R. J. (2017). When narrative transportation narrows attention: Changes in attentional focus during suspenseful film viewing. *Media Psychology, 20*(1), 60-89.

 Blood, A. J., & Zatorre, R. J. (2001). Intensely pleasurable responses to music correlate with activity in brain regions implicated in reward and emotion. *Proceedings of the National Academy of Sciences of the United States of America, 98,* 11818–11823.

Braddock, K., & Dillard, J. P. (2016). Meta-analytic evidence for the persuasive effect of narratives on beliefs, attitudes, intentions, and behaviors. *Communication Monographs, 83*(4), 446-467.

Bryant, J., & Miron, D. (2003). Excitation-transfer theory. In J. Bryant, D. Roskos-Ewoldsen, & J. Cantor (Eds.), *Communication and emotion: Essays in honor of Dolf Zillmann,* (pp. 31-59)*.* Mahwah, NJ: Erlbaum.

Busselle, R., & Bilandzic, H. (2008). Fictionality and perceived realism in experiencing stories: A model of narrative comprehension and engagement. *Communication Theory, 18,* 255–280.

Busselle, R., & Bilandzic, H. (2009). Measuring narrative engagement. *Media Psychology, 12*, 321-347.

Cacioppo, J. T., & Petty, R. E. (1982). The need for cognition. *Journal of Personality and Social Psychology, 42*(1),116–131.

Chen, S., & Chaiken, S. (1999). The heuristic-systematic model in its broader context. In S. Chaiken & Y. Trope (Eds.), *Dual-process theories in social psychology* (pp. 73–96). New York: Guilford.

Cohen, A. J. (2001). Music as a source of emotion in film. In P. Juslin & J. Sloboda (Eds.), *Music and emotion* (pp. 249-272). Oxford: Oxford University Press.

Cohen, A. J. (2005). How music influences the interpretation of film and video: Approaches from experimental psychology. In R. A. Kendall & R. W. Savage (Eds.). *Perspectives in Systematic Musicology. Selected Reports in Ethnomusicology, 12,* (pp. 15-36)*.* Los Angeles, CA: Department of Ethnomusicology, University of California.

Cohen, A. J., & Siau, Y.-M. (2008). The narrative role of music in multimedia presentations: The Congruence-Association Model (CAM) of music and multimedia. In K. Miyazaki, Y. Hiraga, M. Adachi, Y. Nakajima, & M. Tsuzaki (Eds.), *Proceedings of the 10th International Conference on Music Perception and Cognition (ICMPC10) Sapporo, Japan* (pp. 77- 82). Adelaide, Australia: Causal Productions.

Cohen, A. J., MacMillan, K. A. & Drew, R. (2006). The role of music, sound effects & speech on absorption in a film: The congruence-associationist model of media cognition. *Canadian Acoustics, 34*, 40–41.

Cohen, J. (2001). Defining identification: A theoretical look at the identification of audiences with media characters. *Mass Communication and Society, 4,* 246-264.

Costabile, K. A., & Terman, A. W. (2013). Effects of film music on psychological transportation and narrative persuasion. *Basic and Applied Social Psychology, 35*(3), 316-324.

Cova, F., & Deonna, J. A. (2014). Being moved. *Philosophical Studies*, *169*(3), 447–466.

Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience.* New York: Harper & Row.

Djikic, M., Oatley, K., Zoeterman, S., & Peterson, J. (2009). On being moved by art: How reading fiction transforms the self. *Creativity Research Journal, 21,* 24-29.

Escalas, J. E. (1998). Advertising narratives: What are they and how do they work? In B. Stern (Ed.), *Representing consumers: Voices, views, and visions* (pp. 267–289). New York, NY: Routledge & Kegan Paul.

Escalas, J. E. (2004). Imagine yourself in the product: Mental simulation, narrative transportation, and persuasion. *Journal of Advertising, 33*, 37–48.

Escalas, J. E. (2007). Self-referencing and persuasion: Narrative transportation versus analytical elaboration. *Journal of Consumer Research, 33*(4), 421-429.

Fukui, H., & Toyoshima, K. (2014). Chill-inducing music enhances altruism in humans. *Frontiers in Psychology, 12,* 12-15.

Gerrig, R. J. 1993*. Experiencing narrative worlds: On the psychological activities of reading.* New Haven, CT: Yale University Press.

Goldstein, A. (1980). Thrills in response to music and other stimuli. *Physiological Psychology, 8,* 126–129.

Gorn, G. J. (1982). The effects of music in advertising on choice behavior: A classical conditioning approach. *Journal of Marketing, 46,* 94-101.

Gorn, G., Pham, M. T., & Sin, L. Y. (2001). When arousal influences ad evaluation and valence does not (and vice versa). *Journal of Consumer Psychology, 11*, 43–55.

Green, M. C. (2004). Transportation into narrative worlds: The role of prior knowledge and perceived realism. *Discourse Processes, 38,* 247–266.

Green, M. C., & Brock, T. C. (2000). The role of transportation in the persuasiveness of public narratives. *Journal of Personality and Social Psychology, 79,* 701–721.

Green, M. C., Chatham, C., & Sestir, M. (2012). Emotion and transportation into fact and fiction. *Scientific Study of Literature, 2*(1), 37-59.

Hanich, J., Wagner, V., Shah, M., Jacobsen, T., & Menninghaus, W. (2014). Why we like to watch sad films: The pleasure of being moved in aesthetic experiences. *Psychology of Aesthetics, Creativity, and the Arts, 8*(2), 130–143.

Heckler, S. E., & Childers, T. L. (1992). The role of expectancy and relevancy in memory for verbal and visual information: What is incongruency? *Journal of Consumer Research, 18,* 475-492. Retrieved from <http://www.jstor.org/stable/2489260>

Houston, M. J., Childers, T. L., & Heckler, S. E. (1987). Picture-word consistency and the elaborative processing of advertisements. *Journal of Marketing Research, 24,* 359-369. Retrieved from <http://www.jstor.org/stable/3151383>

Ireland, D. (2018). *Identifying and interpreting incongruent film music*. London: Palgrave Macmillan.

Johnson, M. K., Hashtroudi, S., & Lindsay, D. S. (1993). Source monitoring. *Psychological Bulletin, 114,* 3–28.

Kellaris, J. J., Cox, A. D., & Cox, D. (1993). The effect of background music on ad processing: A contingency explanation. *Journal of Marketing, 57,* 114-125. Retrieved from <http://www.jstor.org/stable/1252223?origin=JSTOR-pdf>

Knowles, E. S., & Linn, J. A. (2004). *Resistance and persuasion*. Mahwah, NJ: Erlbaum.

Leone, L., & Chirumbolo, A. (2008). Conservatism as a motivated avoidance of affect: Need for affect scales predict conservatism measures. *Journal of Research in Personality, 42,* 755-762.

Loewenstein, G. (1994). The psychology of curiosity: A review and reinterpretation. *Psychological Bulletin, 116*(1), 75–98.

Lombard, M., & Ditton, T. B. (1997). At the heart of it all: The concept of presence. *Journal of Computer-Mediated Communication, 13*(3). Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/j.1083-6101.1997.tb00072.x/full>

MacInnis, D. J., & Park, C. W. (1991). The differential role of characteristics of music on high- and low-involvement consumers’ processing of ads. *Journal of Consumer Research, 18,* 161-173.

Maio, G. R., & Esses, V. M. (2001). The need for affect: Individual differences in the motivation to approach or avoid emotions. *Journal of Personality, 69,* 583–615.

Mar, R. A., & Oatley, K. (2008). The function of fiction is the abstraction and simulation of social experience. *Perspectives on Psychological Science, 13,* 173-192.

Maruskin, L. A., Thrash, T. M., & Elliot, A. J. (2012). The chills as a psychological construct: Content universe, factor structure, affective composition, elicitors, trait antecedents, and consequences. *Journal of Personality and Social Psychology, 103,* 135-157.

McCrae, R. R. (1996). Social consequences of experiential openness. *Psychological Bulletin, 120*(3), 323–337.

McCrae, R. R. (2007). Aesthetic chills as a universal marker of openness to experience. *Motivation and Emotion, 31*(1), 5-11.

McCrae, R. R., & Costa, P. T., Jr. (1997). Conceptions and correlates of Openness to Experience. In R. Hogan, J. A. Johnson, & S. R. Briggs (Eds.), *Handbook of personality psychology* (pp. 825–847). Orlando, FL: Academic Press.

Miall, D. S., & Kuiken, D. (2002). A feeling for fiction: Becoming what we behold. *Poetics, 30,* 221-241.

Middlestadt, S. E., Fishbein, M., & Chan, D. K. S. (1994). The effect of music on brand attitudes: Affect- or belief-based change? In E. M. Clark & T. C. Brock & D. W. Stewart (Eds.), *Attention, Attitude, and Affect in Response to Advertising* (pp. 149-167). Hillsdale, NJ: Lawrence Erlbaum.

Morris, J. D., & Boone, M. A. (1998). The effects of music on emotional response, brand attitude, and purchase intent in an emotional advertising condition. *Advances in Consumer Research, 25,* 518-526. Retrieved from <http://www.acrwebsite.org/search/view-conference-proceedings.aspx?Id=8207>

Moutafi, J., Furnham, A., Crump, J. (2006). What facets of openness and conscientiousness predict fluid intelligence score? *Learning and Individual Differences, 16,* 31–42.

North, A. C., Hargreaves, D. J. & McKendrick, J. (1999). The influence of music on in-store wine selections. *Journal of Applied Psychology, 84,* 271–276.

North, A. C., MacKenzie, L. C., & Law, R. M. (2004). The effects of musical and voice “fit” on responses to advertisements. *Journal of Applied Social Psychology, 34*(8), 1675-1708.

Nusbaum, E. C., & Silvia, P. J. (2011). Shivers and timbres: Personality and the experience of chills from music. *Social Psychological and Personality Science, 2,* 199–204.

Panksepp, J. (1995). The emotional sources of “chills” induced by music. *Music Perception, 13,* 171–207.

Petty, R. E., & Wegener, D. T. (1999). The elaboration likelihood model: Current status and controversies. In S. Chaiken & Y. Trope (Eds.), *Dual-process theories in social psychology* (pp. 41–72). New York: Guilford.

Richter, T., Schroeder, S., & Wöhrmann, B. (2009). You don’t have to believe everything you read: Background knowledge permits fast and efficient validation of information. *Journal of Personality and Social Psychology, 96,* 538–598.

Rickard, N. S. (2004). Intense emotional responses to music: A test of the physiological arousal hypothesis. *Psychology of Music, 32*, 371–388.

Robinson, J. (2005). *Deeper than reason: Emotion and its role in literature, music, and art.* New York: Oxford University Press.

Schroeder, S., Richter, T., & Hoever, I. (2008). Getting a picture that is both accurate and stable: Situation models and epistemic validation. *Journal of Memory and Language, 59,* 237–259.

Seibt, B., Schubert, T. W., Zickfeld, J. H., & Fiske, A. P. (2017). Interpersonal closeness and morality predict feelings of being moved. *Emotion, 17*(3), 389-394.

Shen, Y. C., & Chen, T. C. (2006). When east meets west: The effect of cultural tone congruity in ad music and message on consumer ad memory and attitude. *International Journal of Advertising, 25*(1), 51-70.

Shen, F., Sheer, V. C., & Li, R. (2015). Impact of narratives on persuasion in health communication: A meta-analysis. *Journal of Advertising, 44*(2), 105-113.

Silvia, P. J., & Nusbaum, E. C. (2011). On personality and piloerection: Individual differences in aesthetic chills and other unusual aesthetic experiences. *Psychology of Aesthetics, Creativity, and the Arts, 5,* 208–214.

Slater, M. D., & Rouner, D. (2002). Entertainment-education and elaboration likelihood: Understanding the processing of narrative persuasion. *Communication Theory, 12*(2), 173–191.

Sloboda, J. A. (1991). Music structure and emotional response: Some empirical findings. *Psychology of Music, 19*, 110–120.

Steffens, J. (2018). The influence of film music on moral judgments of movie scenes and felt emotions. *Psychology of Music.* Advance online publication. Available via https://doi.org/10.1177/0305735618779443

Stel, M., Van Baaren, R. B., & Vonk, R. (2008). Effects of mimicking: Acting prosocially by being emotionally moved. *European Journal of Social Psychology, 38,* 965–976.

Strick, M., & Van Soolingen, J. (2017). Against the odds: Human values arising in unfavourable circumstances elicit the feeling of being moved. *Cognition and Emotion*. Advance online publication. doi:10.1080/02699931.2017.1395729

Strick, M., De Bruin, H. L., De Ruiter, L., & Jonkers, W. (2015). Striking the right chord: Emotionally moving music increases psychological transportation and narrative persuasion. *Journal of Experimental Psychology: Applied, 21,* 57-72.

Strick, M., Holland, R. W., Van Baaren, R. B., Van Knippenberg, A., & Dijksterhuis, A. (2013). An associative processing model of humor in advertising. European Review of Social Psychology, 24, 32-69.

Van Laer, T., De Ruyter, K., Visconti, L. M., & Wetzels, M. (2014). The extended transportation-imagery model: A meta-analysis of the antecedents and consequences of consumers’ narrative transportation. *Journal of Consumer Research, 40*(5), 797-817.

Wirth, W. (2006). Involvement. In J. Bryant & P. Vorderer (Eds.), *Psychology of entertainment* (pp. 199–213). Mahwah, NJ: Erlbaum.

Zickfeld, J. H., Schubert, T. W., Seibt, B., & Fiske, A. P. (2019). *Moving* through the literature: What is the emotion often denoted *being moved*? *Emotion Review.* Advance online publication. Available via https://doi.org/10.1177/1754073918820126

Zillmann, D. (1991). Empathy: Affect from bearing witness to the emotions of others. In J. Bryant & D. Zillmann (Eds.), *Responding to the screen: Reception and reaction processes* (pp. 135–168). Hillsdale, NJ: Erlbaum.

Author Note

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