The role of dimensions of narrative engagement in narrative persuasion

ANNEKE DE GRAAF, HANS HOEKEN, JOSÉ SANDERS and HANS BEENTJES
E-mails: a.degraaf@let.ru.nl; h.hoeken@let.ru.nl; j.sanders@let.ru.nl; h.beentjes@maw.ru.nl.

Abstract
Several models of narrative persuasion posit that a reader's phenomenological experience of a narrative plays a mediating role in the persuasive effects of the narrative. Because the narrative reading experience is multidimensional, this experiment investigates which dimensions of this experience — referred to here as narrative engagement — mediate between reading a story and the persuasive effects of the story. Narrative engagement was manipulated by giving participants a selection task to carry out while reading or by adding language errors to the story. Results showed that the task decreased the engagement dimension Being in Narrative World and the language errors decreased the dimension Attentional Focus. No corresponding effects on attitudes were found. However, comparisons with a control group showed that reading the story rendered attitudes more consistent with the story. Regression analysis indicated that this effect may be explained by readers' emotions regarding the characters.

Keywords: narrative engagement, narrative persuasion, reading

Introduction
Narratives can be powerful means of persuasion. Several studies have shown that narratives can influence beliefs (e.g. Appel and Richter, 2007; Strange and Leung, 1999), attitudes (e.g. Diekman, McDonald and Gardner, 2000; Lee and Leets, 2004), and behavioral intentions (e.g. Massi-Lindsey and Ah Yun, 2005; Slater, Rouner and Long, 2006). Given this persuasive potential of stories, interest in the process of narrative persuasion has grown over the last decade and several models have been developed to explain the persuasive effects of narratives. These models posit that readers' phenomenological experience of a narrative plays a mediating role in narrative persuasion (Busselle and Bilandzic, 2008; Green and Brock, 2000, 2002; Slater and Rouner 2002). This experience can be described as "being lost in a book" or "immersed in a story" and is intuitively familiar to anyone who has ever read a good
novel (Green and Brock, 2000; Nell, 1988). However, different terms and, more importantly, different conceptualizations have been used for the narrative reading experience in several models. Therefore, the nature of the experience that mediates between reading a narrative and its persuasive effects is unclear.

The present study aims to provide more insight into the narrative experience and its role in narrative persuasion. To achieve this goal, a theoretical framework is developed in the following paragraphs. First, two models of narrative persuasion and empirical evidence for their claims are presented. Subsequently, differences between conceptualizations of the experience that mediates narrative persuasion are discussed to obtain a clearer view on the nature of this experience of reading a narrative. Finally, research questions are formulated that will be examined in an experiment.

Models of narrative persuasion

The transportation-imagery model (Green and Brock, 2000, 2002) posits that the phenomenological experience of “transportation into a narrative world” mediates between reading a story and the acceptance of beliefs implied by the story. The more a reader is transported into a narrative world, the more the story will influence the reader’s beliefs. The term transportation into a narrative world is derived from Gerrig (1993) who describes the experience of being transported as the sensation of travelling away from the world of origin to a narrative world. Based on Gerrig’s description, Green and Brock (2000, p. 701) conceptualize transportation as a convergent mental process in which attention, emotion, and imagery become focused on events occurring in the narrative.

In the transportation-imagery model, imagery is given a particularly central role in narrative persuasion. The model postulates that stories may change beliefs to the extent that images are activated by transportation (Green and Brock, 2002, p. 317). Vivid imagery may affect beliefs because it makes narrative events seem like real experience, something which plays a powerful role in shaping attitudes (Green, 2006; Green and Brock, 2000). Green (2006) contends that mental imagery facilitates mental simulation of events in a narrative. When readers simulate or imagine the described events and situations, they may adopt beliefs and intentions that are implicated by the sequence of events (Green, 2006, p. 171). Additionally, narratives may change beliefs because readers do not critically elaborate on assertions made in a story (Green, 2006; Green, Garst and Brock, 2004). Transportation is by definition incompatible with elaborative scrutiny of a story. When a reader’s mental resources are completely focused on a story, the reader will have the neither the
capacity nor the motivation to be critical of the persuasive implications of the story (Green, 2006, p. 169). In other words, the complete focus of attention on the events happening in a story will lead to a reduction of negative cognitive responses, thereby increasing acceptance of beliefs implied by the story (Green and Brock, 2000). Finally, Green and Brock (2000) posit that strong feelings toward story characters may lead to belief change. When a reader emotionally connects to a character, experiences and assertions of a character may shift the reader’s beliefs in a way that is more consistent with the character’s (Green, 2006, p. 165).

Slater and Rouner (2002) developed the Extended Elaboration Likelihood Model (Extended ELM) to explain the persuasive effects of narratives. They posit that “absorption in a narrative” is a mediator between consuming a story and attitudinal and behavioral effects of the story. Absorption is defined as “vicariously experiencing the characters’ emotions and personality” (Slater and Rouner, 2002, p. 178). Additionally, identification is a partial mediator of persuasive effects in the Extended ELM. Slater and Rouner (2002, p. 178) define identification as perceiving characters as similar to oneself or as someone with whom one might have a social relationship. This definition makes identification clearly different from absorption because, unlike absorption, perceived similarity and affinity to characters are not experiences of the narrative, but judgments about characters (Cohen, 2001, p. 254).

In the extended ELM (Slater and Rouner, 2002), both the experience of absorption and the judgment of identification – i.e. perceived similarity and affinity – are believed to lead to fewer negative cognitive responses about imbedded persuasive content. When a recipient is absorbed in a story and identifies with characters, the total polarity of all cognitive responses will become more positive, as absorption and identification are incompatible with counterarguing (Slater and Rouner, 2002, p. 180). In line with the Elaboration Likelihood Model (Petty and Cacioppo, 1986), it is expected that the fewer negative cognitive responses recipients generate, the more they will accept attitudinal and behavioral implications of the story (Slater and Rouner, 2002).

Empirical evidence for the mediating role of the narrative reading experience

In both models of narrative persuasion, the phenomenological experience during reception of a narrative – termed either transportation or absorption – is to mediate the persuasive effects of narratives. For one of the concepts that captures the narrative reading experience, transportation, there is empirical evidence for the mediating role of this experience. Green and Brock (2000) conducted a series of four experiments
in which they measured transportation with a single scale including items to measure the level of attention, emotion and imagery. They attempted to manipulate the level of transportation with several pre-reading instructions. For example, one of the manipulations was aimed at increasing transportation by instructing participants to imagine being an actor that has to act out the story. Another manipulation was aimed at decreasing transportation by having participants circle words that they thought to be too difficult for fourth grade readers. The group instructed to read the story attentively was used to obtain baseline levels of transportation.

In three of Green and Brock’s (2000) experiments, the manipulations were not successful. The extent of self-reported transportation was not affected by the instructions, indicating the difficulty of manipulating transportation experimentally. When a median split was used to distinguish between participants who were strongly transported and those who were weakly transported, it was found that the former group held beliefs more consistent with the story than the latter group. However, since the differences in transportation were not manipulated but observed, it is unclear whether higher levels of transportation caused the beliefs to be more consistent or whether participants holding story-consistent beliefs prior to reading the story were more likely to be transported into the story.

In Green and Brock’s (2000) fourth experiment, one of the manipulations intended to decrease the level of transportation was successful. Participants who were instructed to circle words that were too difficult for fourth grade readers reported less transportation than participants who were instructed to read the story attentively. Additionally, participants in the circling condition exhibited beliefs that were less consistent with the story than the other participants. Mediation analysis showed that this effect of the circling condition on beliefs was mediated by the level of transportation, therefore providing support for transportation as a mediating process of narrative persuasion.

For the extended ELM (Slater and Rouner, 2002), some partial empirical evidence is available. An exploratory study by Slater and Rouner (as cited in Slater and Rouner, 2002, pp. 183–184) presented narratives that depicted alcohol use and its consequences to a group of college students. In accordance with the extended ELM, these narratives led to a very low amount of negative, story-inconsistent cognitive responses about the embedded persuasive topic. However, absorption was neither manipulated nor measured in this study. Slater, Rouner, and Long (2006) used an adapted version of Green and Brock’s (2000) Transportation Scale in a study examining the effects of two dramas on public policy support. For one of these dramas, they found that the transportation measure was related to story-consistent attitudes (Slater et al., 2006).
The narrative experience

As discussed in the previous section, there is some evidence that the phenomenological experience during reception of a narrative can mediate persuasive effects of the narrative. However, not only has this experience been given different names, there are also differences regarding the conceptualizations of this experience. Whereas Gerrig's (1993) description of transportation focuses on the experience of making a journey away from the actual world and into a narrative world, Green and Brock (2000) specify the mental processes potentially underlying this experience. However, it has not been established how the mental processes of attention, emotion and imagery, and the experience of being transported are related. Furthermore, Slater and Rouner's (2002) description of the narrative experience is more specific than Gerrig's (1993). To be absorbed in Slater and Rouner's (2002) sense, a reader must adopt the emotions and personality of characters, whereas Gerrig (1993) describes the experience of going into the story world without mentioning characters. It is unclear whether a reader needs to experience the emotions and personality of a character to feel transported into a narrative world. Even though Slater and Rouner (2002, p. 179) equate their concept of absorption with transportation, several researchers argue that it is not necessary to take the place of a character in a narrative world to be transported (e.g. Cohen and Tal-Or, 2008; Green, Brock and Kaufman, 2004, p. 318). In sum, the exact nature of the phenomenological experience of reading a narrative is a matter of debate.

As the aforementioned conceptualizations all describe the phenomenological experience while reading a narrative, this narrative experience can best be seen as multi-dimensional (Busselle and Bilandzic, 2008). Different aspects of the experience can be distinguished, such as the focusing of attention on the story and emotional response to the story. Following Busselle and Bilandzic (2008a), the narrative experience as a whole will be called narrative engagement in this study. Elements from the conceptualizations of the phenomenological experience of reading narratives may form dimensions of narrative engagement.

The multi-dimensional nature of narrative engagement is confirmed by recent empirical research that found dimensions of narrative engagement relating to narrative understanding, attentional focus on the story, emotion for and with characters, and the sensation of being there in a narrative world (Busselle and Bilandzic, in print). However, the study that manipulated the narrative reading experience and found a mediating effect used a single scale that included several aspects of the narrative reading experience (Green and Brock, 2000). It is unclear which dimen-
sion(s) of this experience accounted for the persuasive effects they found. Therefore, research that both manipulates narrative engagement and distinguishes between dimensions of this experience is needed.

**Research questions**

The narrative reading experience has proved difficult to manipulate. Several attempts at increasing transportation did not succeed (Green, 2004; Green and Brock, 2000). However, decreasing transportation by instructing participants to carry out an extra task during reading was successful in the fourth experiment of Green and Brock (2000). It seems that disrupting engagement may be easier than increasing engagement. The extra task of circling words that would be too difficult for fourth grade readers led to lower transportation. The rationale is that the extra task takes up cognitive resources of readers that cannot be focused on events occurring in the narrative (Green and Brock, 2000). Other disruptions of reading may also decrease narrative engagement without focusing cognitive resources on another task than reading. Furthermore, such a disruption may influence different dimensions of narrative engagement because it does not take up mental resources itself. To explore the possibilities to manipulate narrative engagement and its different dimensions, this first research question is formulated:

**RQ1:** Which dimensions of narrative engagement are influenced by different disruptions of reading?

There are several indications that distinct dimensions of narrative engagement play a different role in persuasive effects. As discussed above, the transportation-imagery model (Green and Brock, 2002) places central emphasis on the imagery evoked by the story in narrative persuasion. This suggests that the dimension of narrative engagement that incorporates mental imagery will mediate persuasive effects of narratives. The more readers have vivid mental imagery, the more they may shift their attitudes toward the ones implicated by the story. Another mediating effect of narrative engagement may lie in the focus of attention on the story. As Green (2006) argues, when all mental resources are occupied with a narrative, there is no capacity left for critical analysis of story content. Attentional focus on the story may therefore lead to a reduction of negative cognitive responses, which, in turn, results in higher acceptance of story consistent beliefs and attitudes (Green and Brock, 2000; Slater and Rouner, 2002). Furthermore, readers’ emotions with respect to characters may be important in narrative persuasion. Slater and Rouner’s (2002) definition of absorption specifically focuses
on adopting characters’ emotions and personality. Emotions experienced because of characters may shift readers’ attitudes toward the ones implicated by that character (Green, 2006). Some empirical evidence already exists for this possibility. Busselle and Bilandzic (in print) find that the engagement dimension of emotion for and with characters is most strongly related to story-consistent attitudes. This suggests that emotions recipients feel regarding the characters may be important in narrative persuasion.

In addition to imagery, attentional focus and emotions with respect to characters, several other dimensions of narrative engagement may be distinguished that could also mediate persuasive effects of narratives. As a starting point to gain more insight into mechanisms of narrative persuasion, this study however is limited to the dimensions discussed above, as they have been clearly identified as potential mediators in the literature. Our second research question probes the role of these distinct dimensions in narrative persuasion:

RQ2: Which dimensions of narrative engagement mediate between reading a narrative and persuasive effects of the narrative?

These research questions are addressed in an experiment that will be described in the following sections.

Method

Materials

A narrative was used from a collection of true stories published by Amnesty International about asylum seekers in the Netherlands (Busser, 2005). This story was selected because it implied attitudes about the Dutch asylum policy. It is about a Turkish woman who seeks asylum in the Netherlands because she was imprisoned and mistreated in Turkey for affiliation with the Kurdish party. After living in a refugee center for a while, she is questioned by an officer from immigration services. During this conversation she is overcome with memories and emotions and is unable to tell most of her story. Some of these memories are presented to the reader as her thoughts, as she cannot tell them to the officer and the translator through her tears. Because she is so upset, the immigration officer stops questioning her and lets her go back to the refugee center. However, she is not questioned again and, after a while, her asylum request is denied based on the unfinished conversation. The original story was adapted mainly to leave out some parts about the Turkish prison because these were irrelevant to the attitudes about the Dutch asylum policy. The adapted story consisted of 2,254 words.
This story was presented in four conditions. In the undisrupted reading condition, participants were instructed to read the story as they normally would. These participants read the story without any distractions so that narrative engagement would be at a natural level. Two other conditions were intended to decrease narrative engagement by disrupting reading in two different ways. The selection condition was based on the manipulation used by Green and Brock (2000), wherein participants circled words they judged too difficult for fourth grade readers. As in this study, participants in the selection condition had to carry out an extra task during reading, although here a different task was chosen because the narrative used in this study was unsuitable for children. Instead, participants were instructed to select one sentence in each of the 20 paragraphs that they thought could be omitted without disturbing the story line. By adding the cognitive activity of an extra task, participants were expected to become less engaged with the story (Green and Brock, 2000). In the language-errors condition, another disruption of reading was attempted that did not include an extra task. In this condition, approximately 10 language errors were added to each of the four pages of the story, such as spelling and punctuation errors. These errors were quite apparent so that they were expected to disrupt smooth reading and thus lower engagement. In the three above conditions, all dependent measures were completed after reading the story. In a fourth control condition participants filled out the attitude measures before reading the story in order to establish attitudes without having read the story. After filling out the attitude measures, participants in this control condition read the story without any disruptions and filled out the remaining dependent measures.

Participants and design

The sample consisted of 152 students from a Dutch university who participated in this experiment for course credit in a first year communication class. The participants’ ages varied between 17 and 25 with an average age of 20. The majority of the sample was female (79.6%). The study used a one-level, between-subjects design with four conditions: the undisrupted reading condition, the selection conditions, the language-error condition and the control condition. Two participants in the selection condition were excluded from further analysis because they did not select any sentence. This left 38 participants in the undisrupted reading, the language-error, and the control condition and 36 participants in the selection condition.
Measures
Participants had to answer questions on personal characteristics, attitudes toward the Dutch asylum policy, and engagement with the story. Personal characteristics consisted of two questions about gender and age.

Attitudes toward the Dutch asylum policy were measured with eight questions. There were four questions about the attitude toward the Dutch asylum policy in general (Cronbach’s $\alpha = .69$), such as “The Dutch asylum policy should be mild”. Four questions were included about specific rules in the Dutch procedure for asylum request that were mentioned either directly or indirectly in the story (Cronbach’s $\alpha = .75$), such as: “Asylum seekers should get as much time as they need to tell their story”. In the story, the asylum seeker was only questioned once, during which occasion she was clearly unable to tell her whole story. As the omitted information was also relevant to the asylum request, this implies asylum seekers should have more opportunities to relate their whole story. Participants had to indicate the extent to which they agreed with each statement on 7-point scales ranging from completely disagree to completely agree.

Narrative engagement was measured with 28 questions. To capture all aspects of the phenomenological experience during reading that were distinguished in the theoretical framework, new items were mainly formulated based on the definitions of the concepts given by the scholars discussed. First of all, the following 10 items were based on Green and Brock’s (2000) definition of transportation as the focusing of attention, emotion, and imagery on the events occurring in the narrative. Four items were used for attention focused on the story (these items are marked ATT in appendix A), such as “During reading, my attention was fully captured by the story”. One of these items was based on an item from the Transportation Scale (Green and Brock, 2000) (this item is also marked TS in appendix A). Four items were also used for emotion evoked by the story (marked EMO in appendix A), such as “The story affected me”. Again, one of these items was based on an item from the Transportation Scale (Green and Brock, 2000) (also marked TS in appendix A). Finally, two items were used for imagery of the narrative (marked IMA in appendix A), such as “While I was reading the story, I visualized the events that took place in it”.

Next, six items were based on Gerrig’s (1993) description of transportation as the sensation of going into a narrative world (these items are marked GNW in appendix A), such as “When I was reading the story, it seemed in my imagination as if I was there”. Three of these items were adapted from the telepresence scale (Kim and Biocca, 1997) that captured a similar sensation in a different context (these items are also marked TP in appendix A).
Finally, the last 12 items were based on Slater and Rouner’s (2002) definition of absorption as vicariously experiencing characters’ emotions and personality. Four items were used for experiencing emotions with respect to the asylum seeker (marked EMA in appendix A), such as “I felt bad for the asylum seeker,” and four items were used for adopting the identity of the asylum seeker (marked AIA in appendix A), such as “In my imagination it was as if I was the asylum seeker”. Additionally, four items were used that captured a less extreme form of experiencing a story from the position of the main character, (marked POA in appendix A) such as “During reading I imagined what it would be like to be in the position of the asylum seeker”. Participants had to indicate the extent to which they agreed with each statement on 7-point scales ranging from completely disagree to completely agree.

To establish dimensions in these aspects of the narrative experience, an exploratory principal components factor analysis was carried out (see appendix A). Data for narrative engagement of the control group were not included because the attitude questions that were answered before reading the story may have made participants suspect persuasive intent of the story. Because dimensions of narrative engagement were expected to be correlated (see Busselle and Bilandzic, in print), oblimin rotation was used. The solution showed that the factors were indeed correlated from $r = .31$ to $r = .49$. Both the eigenvalue rule and the scree plot indicated that four factors were appropriate. The total variance explained by the unrotated factor solution was 69.62%.

To determine which variables loaded on a factor, the rule of thumb was used that variables should load above .50 on a factor and not above .30 on another factor. Factor 1 contains all items about emotions with respect to the asylum seeker, combined with all items about emotion evoked by the story and two items about experiencing the story from the position of the asylum seeker. This grouping likely reflects the importance of imaginatively taking the position of a character in the story world for emotional responses with regard to the character (see Cohen, 2001). Because of the dominance of items about emotions, this factor is called “Emotion” (10 items, Cronbach’s $\alpha = .94$). Factor 2 contains all items about adopting the identity of the asylum seeker and one about experiencing the story from the position of the asylum seeker. Because the latter item was likely interpreted similarly to the other items, this factor is called “Adopting Identity of Asylum Seeker” (5 items, Cronbach’s $\alpha = .91$). Factor 3 contains all items about attention focused on the story and an item about the sensation of going into the narrative world. Because of the dominance of items about attention, this factor is called “Attentional Focus” (5 items, Cronbach’s $\alpha = .90$). Factor 4 contains the two items about imagery of the story, four items about the
sensation of going into the narrative world, and one item about experiencing the story from the position of the asylum seeker. The formulation of the latter item may have caused it to load on the same factor as the imagery items because it implied imagery of the events that were described in the story. Apparently, imagery of the story and the feeling of going into a narrative world are closely related. Therefore, this factor is called "Being in Narrative World" (7 items, Cronbach’s $\alpha = .89$). One item about the sensation of going into a narrative world is not included in this factor because it loaded above .30 on a secondary factor.

Procedure

The experiment was administered to groups of 12–18 participants. All materials and measures were administered in Dutch. The undisrupted reading, control, and language-errors condition were randomly divided among participants in the same groups. These took about 20 minutes to complete. Because the selection condition took about 25 minutes to complete, this condition was administered to three separate groups of participants. To ensure randomization of participants, the three groups that would receive the selection condition were randomly selected. After everyone in a group was finished, participants were debriefed and any remaining questions were answered.

Results

Narrative engagement

To answer RQ1, it was assessed whether the disruptions had the intended effect of lowering the level of narrative engagement by comparing the two disrupted reading conditions (i.e. the selection condition and the language-errors condition) to the undisrupted reading condition. Table 1 contains the mean scores and standard deviations for the dimensions of engagement by condition.

<table>
<thead>
<tr>
<th>Engagement dimensions</th>
<th>Undisrupted</th>
<th>Selection</th>
<th>Language errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being in narrative world</td>
<td>4.82 (1.02)$^a$</td>
<td>4.11 (1.22)$^b$</td>
<td>4.39 (1.20)$^{ab}$</td>
</tr>
<tr>
<td>Attentional focus</td>
<td>4.87 (1.22)$^a$</td>
<td>4.22 (1.12)$^b$</td>
<td>3.94 (1.45)$^b$</td>
</tr>
<tr>
<td>Emotion</td>
<td>5.07 (1.02)</td>
<td>4.55 (1.19)</td>
<td>4.56 (1.13)</td>
</tr>
<tr>
<td>Adopting identity of asylum seeker</td>
<td>3.08 (1.23)</td>
<td>2.82 (1.13)</td>
<td>3.00 (1.33)</td>
</tr>
</tbody>
</table>

Note: Different superscripts indicate significant differences between conditions; italicized superscripts indicate marginally significant differences.
Multivariate analysis revealed a main effect of reading condition on engagement with the story (Wilks’s $\lambda = .86$, $F(8, 212) = 2.12$, $p < .05$, $\eta^2 = .074$). Subsequent univariate analysis revealed an effect of reading condition on Being in Narrative World ($F(2, 109) = 3.55$, $p < .05$, $\eta^2 = .061$). Pairwise comparisons using Tukey’s HSD procedure showed that the undisrupted reading condition differed significantly from the selection condition ($p < .05$). Participants who had to select a sentence that could be left out in every paragraph reported a weaker feeling of being in the narrative world than participants who read the story undisrupted. Comparisons between other conditions were not significant ($p$’s > .10).

There was also a univariate effect of reading condition on Attentional Focus ($F(2, 109) = 5.27$, $p < .01$, $\eta^2 = .088$). Pairwise comparisons using Tukey’s HSD procedure showed that the undisrupted reading condition differed significantly from the language error condition ($p < .01$). Participants who read the story with language errors paid less attention to the story than participants who read the story without disruption. The undisrupted reading condition differed marginally from the selection condition ($p = .07$). The effect of reading condition on Emotion was marginally significant ($F(2, 109) = 2.73$, $p = .07$). None of the pairwise comparisons using Tukey’s HSD procedure were significant ($p$’s > .10). There was no effect of reading condition on Adopting Identity of Asylum Seeker ($F < 1$).

**Attitudes**

To examine persuasive effects of the story, attitude scores of participants who had not yet read the story (control condition) were compared to those of participants who had read the story either with or without disruption (selection and language-error condition). Table 2 contains the mean scores and standard deviations for the attitudes toward the Dutch asylum policy in general and specific rules in the asylum request procedure by condition.

<table>
<thead>
<tr>
<th>Attitude toward Dutch asylum policy</th>
<th>Undisrupted</th>
<th>Selection</th>
<th>Language errors</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude toward specific rules in asylum request procedure</td>
<td>5.54 (.98)$^a$</td>
<td>5.54 (.94)$^a$</td>
<td>5.57 (.81)$^a$</td>
<td>4.84 (1.38)$^b$</td>
</tr>
</tbody>
</table>

Note: Different superscripts indicate significant differences between conditions.
Multivariate analysis showed an effect of condition on attitudes (Wilks’ $\lambda = .87$, $F(6, 290) = 3.02$, $p < .01, \eta^2 = .059$). Subsequent univariate analysis showed that there were no differences in the attitude toward the Dutch asylum policy in general ($F(3, 146) = 1.30$, $p = .28$). There were differences however in the attitude toward specific rules in the asylum request procedure ($F(3,146) = 4.33$, $p < .01 \eta^2 = .082$). Pairwise comparisons using Tukey’s HSD procedure showed that the control condition differed significantly from all other conditions (all $p$’s < .05). Participants who had not read the story when answering these attitude questions had attitudes that were less consistent with the story than participants who had read the story, irrespective of the condition in which they read it. Differences between the undisrupted and disrupted conditions were not significant ($p$’s > .90).

**Post hoc regression**

To answer RQ2, mediation analysis would be necessary. However, in mediation analysis, both the effect of the manipulation on the potential mediator and the effect of the manipulation on the outcome have to be significant before it can be examined whether the mediator actually mediates the effect (Baron and Kenny, 1986). Therefore, mediation could not be tested for. However, to explore the relationships between the hypothesized mediators and persuasive effects, dimensions of narrative engagement were regressed on attitudes. The control condition was not included in this analysis because participants in this condition had not yet read the story when they answered the attitude questions. Table 3 presents the results of the regressions for the attitude toward the general

<table>
<thead>
<tr>
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<th>Attitude toward general asylum policy</th>
<th>Attitude toward specific rules in asylum request procedure</th>
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<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE B</td>
</tr>
<tr>
<td>Constant</td>
<td>3.12</td>
<td>0.41</td>
</tr>
<tr>
<td>Being in narrative world</td>
<td>-0.046</td>
<td>0.11</td>
</tr>
<tr>
<td>Attentional focus</td>
<td>-0.050</td>
<td>0.085</td>
</tr>
<tr>
<td>Emotion</td>
<td>0.22</td>
<td>0.11</td>
</tr>
<tr>
<td>Adopting identity of asylum seeker</td>
<td>0.006</td>
<td>0.092</td>
</tr>
<tr>
<td>$R^2$</td>
<td></td>
<td>.043</td>
</tr>
</tbody>
</table>

* $p < .05$
asylum policy and the attitude toward specific rules in the asylum request procedure. Regression analysis showed that the model for the attitude toward the general asylum policy was not significant \( (p = .32) \). None of the engagement dimensions were significant predictors \( (p > .05) \). The model for the attitude toward specific rules in the asylum request procedure was significant \( (p < .05) \). The engagement dimension Emotion was a significant predictor of this attitude \( (p < .05) \). The more readers felt emotions because of the story, the more consistent with the story the attitudes toward specific rules in the asylum request procedure were. The other dimensions of engagement were not significant predictors of this attitude \( (p > .05) \).

**Conclusion and discussion**

This study set out to investigate the role of dimensions of narrative engagement in narrative persuasion. To do so, we explored the influence of different disruptions of reading on dimensions of narrative engagement (RQ1) and the potential mediating effect of these dimensions on attitudes (RQ2).

**Disruption of narrative engagement**

With regards to the first research question, our results showed that the two disruptions of narrative engagement, the selection task and the language errors, influenced different dimensions of narrative engagement. The task of letting participants select a sentence in each paragraph that could be left out weakened the sensation they had of being in a narrative world, whereas the presence of errors in grammar and spelling in the story decreased participants' attentional focus on the story. It appears that the selection task inhibited readers' feeling that they were in the story world, as the task focused readers' cognitive resources on the extra task of selecting sentences that could be left out, rather than the construction of a story world. Attentional focus was then only marginally affected by this selection task because attention was focused on the task that participants had to carry out on the story. The language errors may have had more success in decreasing attentional focus because they disrupted the reading flow without focusing attention on anything else. However, language errors did not influence the sensation of being in a narrative world. This indicates the relative independence of these dimensions of narrative engagement; paying more attention to a story (and less attention to the actual world) does not necessarily mean readers feel as if they are in the narrative world. This provides some evidence against
the implicit assumption of Green and Brock's (2000) conceptualization of transportation that a focus of attention on the events in the story is important for the experience of being transported into a narrative world. Our results suggest that this experience of transportation and the focus of attention on a story may in fact be separate processes that can operate independently.

The factor analytic distinction between the sensation of being in a narrative world and the focus of attention on the story replicates the distinction found between these factors by Busselle and Bilandzic (in print). This strengthens the idea of the independence of these dimensions. Another interesting finding of the factor analysis is that the imagery items loaded on the same factor as the items about the feeling of going into a narrative world. This supports Green and Brock's (2000; 2002) assumption that imagery is important for the experience of being transported into a narrative world. It may also indicate a difference between transportation into the narrative world of written stories, which were used in the present study, and transportation into narratives on television. Whereas the imagery evoked by narratives needs to be generated by readers, narratives on television provide the images ready-made. How these differences between modalities affect the dimensions of narrative engagement is an important question for future research.

The distinction found in the factor analysis between the dimension Emotion, which consisted for a large part of emotion with respect to the main character, and the dimension Adopting Identity of Asylum Seeker is contradictory to the theoretical idea that adopting the emotions and identity of characters are closely related (Cohen, 2001; Slater and Rouner, 2002). It is also contradictory to the results of Busselle and Bilandzic (in print), who did not find a separate factor for adopting the identity of characters. The distinction found in the present study may be due to the specific character in the story that was used in this study. The asylum seeker is very dissimilar to our participants in both her background and the position she is in. It is unlikely that Dutch students have ever been prosecuted in their home country and attempted to seek asylum in another country. Therefore, participants may have found it hard to imagine being the main character, as the low scores on the factor of Adopting Identity of Asylum Seeker indicate (approximately 1 point below neutral midpoint). Nevertheless, they may have been able to empathize with her because of the injustice that has been done to her, as indicated by the relatively high scores on the factor of Emotion (0.5 to 1 point above neutral midpoint). The distinction between Emotion and Adopting Identity may therefore be specific to stories in which main characters are very dissimilar to readers. When characters are more similar to readers in either background or position, adopting the identity of
a character may occur in consonance with emoting with the character. Future research with characters more similar to participants should examine this possibility. The possible influence of specific story characteristics on the factor structure of narrative engagement also indicates the need to examine factor structures for several stories before generalizations can be made to engagement with all stories.

**Effect of engagement dimensions on narrative persuasion**

With regard to RQ2, our results show that the manipulations did not influence attitudes. Therefore, mediation of persuasive effects by engagement dimensions cannot be established. However, differences between the control condition and the other conditions showed that reading the story did have persuasive effects, albeit not on all measured attitudes. Participants who had read the story in any condition had attitudes toward specific rules in the asylum request procedure that were more consistent with the story than participants in the control group who had not yet read the story when they answered the attitude questions; there was however no effect of reading the story on the attitude toward the Dutch asylum policy in general. This suggests that attitudes that are closely related to a story are more easily influenced by the story than attitudes that are more general abstractions from the story. The questions about the asylum request procedure were all about specific rules that were indicated in the story, whereas the questions about the Dutch asylum policy tended to be more about the asylum policy as a whole. Perhaps (isolated) stories can change attitudes only when they are closely related to the story.

The finding that only attitudes closely related to the story were affected may indicate that the effect was due to the priming of attitudes (see Roskos-Ewoldsen, Roskos-Ewoldsen and Carpentier, 2008). Differences between participants who had read the story and who had not read the story were perhaps found because the story made existing attitudes about the asylum procedure more accessible. However, previous research finds that changes in beliefs closely related to a story (that were mentioned explicitly in the story) were persistent and strong (Appel and Richter, 2007), something that would not be expected if they were merely priming effects. Therefore, the changes in closely related attitudes observed in the present study might well be persuasive effects. Because of their limited reach, these effects can be considered small. However, reading several stories about the same general topic that each have a small persuasive effect could, as a cumulative effect, influence attitudes toward more general issues (Bilandzic and Busselle, 2008).
There are several explanations for the finding that the disrupted sensation of being in a narrative world and attentional focus did not have an effect on narrative persuasion, whereas reading the story did. First of all, narrative engagement may not have mediated the persuasive effects at all. Instead, the information contained in the story may have changed attitudes compared to the control group who had not yet read the story. Because the story was about a topic unfamiliar to our participants, it likely contained information of which they were not previously aware. For instance, the rule that the decision about an asylum request is based on only one meeting of the asylum seeker with an officer from immigration services was probably unknown to many participants. This new information may have influenced their attitudes.

Another possible explanation can be found in the results of the regression analysis. In this analysis, only the engagement dimension Emotion was a significant predictor of the attitude toward specific rules in the asylum request procedure. This suggests that emotions, which consisted for a large part of empathy for the asylum seeker, played a role in the persuasive effects of this story. A main limitation of this study is that emotions were not successfully manipulated. Therefore, the causal direction of the influence cannot be ascertained. However, as the regression results also replicate earlier research that found that emotion was most strongly related to attitudes (Bussele and Bilandzic, in print), this explanation does call for further research into the role of emotions with respect to characters in narrative persuasion.

Surprisingly, our results contrast with those of Green and Brock (2000), who used a similar manipulation of the narrative reading experience and found a mediating effect on narrative persuasion. Specific elements of the stories used in these studies could possibly explain the differences. Green and Brock (2000; 2002) suggest that the story they used contained particularly powerful imagery from which conclusions could be derived. In that case, the dimension of the sensation of being in a narrative world, which contains imagery, may have played a role in the effects of their story. On the other hand, the conclusions that could be derived from the story we used in the present study did not rely as much on imagery, but rather on understanding the effects of the policy on individual people. This may explain why disruption of the sensation of being in a narrative world did not have an effect on attitudes in the present study. A limitation of this study is that only one story was used. Replication and extension with multiple stories is necessary to be able to generalize the findings and specify how story characteristics may influence effects of several dimensions of narrative engagement.

Another explanation of the contrast between our results and Green and Brock’s (2000) could be that their manipulation was dissimilar...
enough from our manipulation to produce an effect on emotion, which was suggested to play a role in narrative persuasion by the regression analysis. The task Green and Brock (2000) used of having participants circle words that were too difficult for fourth grade readers not only allocated cognitive resources on a task during reading, but it also focused them on the form of words and grammar. Although the task we used of having participants select sentences that could be omitted also allocated cognitive resources on a task, it did keep them focused on the content of the story. Therefore, Green and Brock’s (2000) task may have disrupted the narrative reading experience more than our task and also decreased the emotion participants felt because of the content. Emotion may then have caused the mediating effects they observed. This explanation can again only be substantiated with future research. Preferably, a manipulation of emotion should be employed that leaves other dimensions of narrative engagement untouched. This type of research can provide further insight into the role of dimensions of narrative engagement in narrative persuasion.

Bionotes

Anneke de Graaf is Doctoral Candidate at the Department of Business Communication, Radboud University Nijmegen, P.O. Box 9103, 6500 HD Nijmegen, The Netherlands.

Hans Hoeken is Professor at the Department of Business Communication, Radboud University Nijmegen, P.O. Box 9103, 6500 HD Nijmegen, The Netherlands.

Jose Sanders is Associate Professor at the Department of Business Communication, Radboud University Nijmegen, P.O. Box 9103, 6500 HD Nijmegen, The Netherlands.

Hans Beentjes is Professor at the Department of Communication Studies, Radboud University Nijmegen, P.O. Box 9104, 6500 HE Nijmegen, The Netherlands.

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**Appendix A. Principal components factor analysis with oblimin rotation of narrative engagement for experiment 1 (n = 112)**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>I felt bad for the asylum seeker (EMA)</td>
<td>.818</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I empathized with the asylum seeker (EMA)</td>
<td>.795</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I felt sorry for the asylum seeker (EMA)</td>
<td>.790</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I put myself in the position of the asylum seeker (POA)</td>
<td>.755</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The story affected me (EMO, TS)</td>
<td>.735</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>During reading I imagined what it would be like to be in the position of the asylum seeker (POA)</td>
<td>.731</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I felt for the asylum seeker (EMA)</td>
<td>.689</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Because of the story feelings arose in me (EMO)</td>
<td>.669</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I found the story moving (EMO)</td>
<td>.657</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The story stirred emotions in me (EMO)</td>
<td>.621</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I had been reading for a while, it seemed as if I had become the asylum seeker in my thoughts (AIA)</td>
<td>.838</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In my imagination it was as if I was the asylum seeker (AIA)</td>
<td>.826</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I had the feeling I went through what the asylum seeker went through (AIA)</td>
<td>.800</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In my thoughts it was as if I was in the position of the asylum seeker (POA)</td>
<td>.769</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>During reading it seemed as if I experienced the events that happened to the asylum seeker along with her (AIA)</td>
<td>.747</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>During reading I was fully concentrated on the story (ATT)</td>
<td></td>
<td>.945</td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I was reading the story, my thoughts were only with the story (ATT)</td>
<td></td>
<td>.872</td>
<td></td>
<td></td>
</tr>
<tr>
<td>During reading I was hardly aware of the space around me (ATT, TS)</td>
<td></td>
<td>.820</td>
<td></td>
<td></td>
</tr>
<tr>
<td>During reading my attention was fully captured by the story (ATT)</td>
<td></td>
<td>.777</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
After the story was finished, I had the feeling I came back into the 'real' world (GNW, TP)

During reading I saw before me like in a movie what was described in the story (IMA)

While I was reading the story, I visualized the events that took place in it (IMA)

When I was reading the story, it seemed in my imagination as if I was there (GNW)

When I was reading the story, I was in the world of the story in my thoughts (GNW, TP)

During reading I had the feeling as if I was present in the spaces that were described in the story (GNW)

In my imagination the story created another world that I visited (GNW, TP)

During reading I imagined what it would be like for the asylum seeker to experience the events that were described (POA)

During reading it was as if I was present at the events that were described (GNW)

| % of variance explained (before rotation) | 46.18 | 9.29 | 7.83 | 6.33 |
| Sum of squared loadings (after rotation) | 9.59  | 7.09 | 6.88 | 8.59 |

Note: Factor loadings < .30 are not reported. ATT = item about attention focused on the story, EMO = item about emotional reactions evoked by the story, IMA = item about imagery of the story, GNW = item about the sensation of going into a narrative world, EMA = item about empathy with the asylum seeker, AIA = item about adopting the identity of the asylum seeker, POA = item about experiencing the story from the position of the asylum seeker, TS = item based on Transportation Scale (Green and Brock, 2000), and TP = item based on Telepresence Scale (Kim and Biocca, 1997).