

*TO BE PUBLISHED IN Psychology of Aesthetics, Creativity and Art.*

*DO NOT CITE WITHOUT AUTHOR'S PERMISSION*

RUNNING HEAD: Sorrow in Fiction and Nonfiction

The Pleasure of Unadulterated Sadness:

Experiencing Sorrow in Fiction, Nonfiction, and “In Person”

Thalia R. Goldstein

Boston College

Correspondence should be addressed to Thalia R. Goldstein, Boston College, Department of Psychology, McGuinn 301, 140 Commonwealth Ave, Chestnut Hill, MA 02467; email [goldstet@bc.edu](mailto:goldstet@bc.edu). FAX: 617-552-0523

Abstract

We experience intense emotions when we enter fictional worlds in film and literature and often shed real tears. The goal of this study was to determine whether emotional reactions (sadness and anxiety) to fiction are distinguishable from emotional reactions to fact. Fifty-nine young adults rated their sadness and anxiety levels in response to 4 film clips, 2 presented as fiction, 2 as non-fiction, and in response to the recall of an actual sad event personally experienced. Participants experienced equivalent levels of sadness and anxiety in response to films presented as fictional or factual. They also experienced equivalent levels of sadness in response to films and in response to a sad personal event. Anxiety levels, however, were significantly higher in response to personally experienced events. The fact that sadness elicited by films is unadulterated by the anxiety that accompanies the sadness of personal experience may explain, in part, the pleasure we derive from watching sad films.

The Pleasure of Unadulterated Sadness:

Experiencing Sorrow in Fiction, Nonfiction, and “In Person”

In late 2005 and early 2006, James Frey’s *A Million Little Pieces* (2005) made its way up the *New York Times* bestseller list and was featured in Oprah’s book club. The book was presented as a factual account of Frey’s descent into drug addiction but later was discovered to be primarily fabricated – that is, a work of fiction. Two similar cases became public recently. An author presenting himself as J.T. Leroy wrote about his experiences as a male prostitute, an account which also turned out to have been fictitious (Leroy, 2001). And Misha Defonseca published a memoir describing living with wolves after her parents were killed by the Nazis – again an account that turned out to have been made up (Defonseca, 1997). In all three cases, readers were outraged. Oprah denounced James Frey on camera, readers sued Frey because they felt they had been “duped,” and readers of Leroy and Defonseca were equally upset.

Why did readers care so passionately? Would their experiences as readers have been weaker if they had read these books believing them to be fiction? And was their emotional response to these works in any way less intense than their emotional responses to events in their own lives? The study presented here addressed this question by comparing emotional responses to stories presented (in the medium of film) as fiction vs. fact. The study also compared emotional responses to stories in film vs. sadness experienced in our own lives. An understanding of the parallels (and differences) between emotional reactions to fiction, on the one hand, and to fact in others’ lives and in our own lives, should help to clarify why we immerse ourselves in tragedy in fiction (films, literature) yet strive to avoid tragedy in our own lives.

Literary theorists, critics, and some psychologists have speculated about how reactions to fiction may differ from reactions to non-fiction; some of their arguments support the hypothesis that emotional responses to fiction may be stronger than emotional responses to non-fiction. Theorists have proposed at least four ways in which our reactions to fiction differ from our reactions to nonfiction.

*The Power of Fiction to Manipulate our Emotions*

Fictional works can be manipulated to create large emotional effects; indeed, this is often one of the prime goals of a fiction writer (Oatley, 1999). A non-fictional work does not have this kind of freedom (Mellmann, 2002). Fictional films, for instance, are organized so as to manipulate the audiences' sympathy and engage their emotions (Coplan, 2006). Fiction abstracts, simplifies, and compresses real life to elicit strong emotions in the audience (Mar & Oatley, 2008).

*Stronger Reactions to Fiction because the "Appraisal System" is Quieted*

It has been argued that when we enter a fictional world, our appraisal system -- by which we judge whether events are plausible and try to determine the proper emotional reaction -- is quieted (Harris, 2000). When engaging with fiction, we do not have to judge the work in terms of its realism. Knowing that we have entered a fictional world allows our emotions a "safe" space to be released, without real world consequences. Evidence consistent with this view comes from a study by Zwaan (1994), who showed that when people believe they are reading fiction (vs. a news story), they spend more time focused on the surface of the text -- the wording and syntax, and more time on the meaning of the text. When they believe they are reading a news story, readers focus on integrating their knowledge with the facts. Consistent with this finding, Keen (2006) argued that

nonfiction readers operate in a skeptical and investigative mode, while fiction readers become immersed in the lives of the characters. In short, because we mute our appraisal system when we read fiction, we are more likely to allow ourselves to feel powerfully in response to fiction than in everyday life (Carroll, 1996; Harris, 2000; Keen, 2006, 2007; Mar & Oatley, 2008; Oatley, 1999).

*Stronger Reactions to Fiction Because of the “Safety” of Fiction*

Fiction is argued to be a safe arena for us to experience (and practice) our emotions: in fiction we can experience emotions without need for self-protection, and thus we can allow ourselves to feel more than we would feel in real life (Keen, 2006, 2007; Zunshine, 2006). Because we know that the tragedy on screen will not follow us into our kitchen, we can allow ourselves to feel more strongly. Fiction provides readers with a controlled environment in which to explore emotions they try to avoid in real life in (Mar & Oatley, 2008). Fiction also allows us safely to practice our understanding of others and our emotional responses to other’s situations (Zunshine, 2006). Fiction allows for the cognitive simulation of an event without any real world consequences; we are not tied to feeling any one way and therefore can feel more.

*Stronger Reactions to Fiction due to Lack of Obligation to Fictional Characters*

Closely related to the safety argument is the view that we are emotionally engaged by characters and events in fiction because we feel no obligation towards them (Coplan, 2006). If we allowed ourselves to feel empathy for victims shown in the news, we might have to contribute money or time to help them. But, we can allow ourselves to feel strongly toward fictional victims because we know we will have no obligation to them once the story or film is over.

The above claims are all consistent with the hypothesis that reactions to fiction are stronger than reactions to nonfiction -- a position contrary to that of Frey's outraged readers. Frey's readers believed they had been duped into having a powerful response because they thought they were reading nonfiction. But if the above-mentioned theorists are correct, Frey's readers would have responded more powerfully had believed they were reading fiction.

However a third possibility is also plausible. Perhaps our reactions to fiction are equivalent to our reactions to nonfiction. The poet Samuel Taylor Coleridge (1817/1983) argued that when we read fiction, we willingly suspend our disbelief. Such suspension of disbelief should then allow us to react to the fiction as if it were real. If we can completely suspend our disbelief, then our reactions to fiction should be equivalent to our reactions to nonfiction.

There are at least two limitations to the comparisons made by the theorists discussed above. To begin, all confound content of a work with whether the work is fictional. Of course a fictional account of a love affair will excite more emotions than a dry account of the daily news. A plausible way to determine whether emotional responses are affected by whether we believe we are watching (or reading) fiction is to present the identical content as either fiction or nonfiction. This was the goal of the current study.

The second limitation is that the theorists only consider reactions to fiction vs. nonfiction, but do not address what we consider to be an even more pressing question -- reactions to film (whether fictional or non-fictional) vs. reactions to events in our own lives. It is paradoxical that we subject ourselves to sad films when we strive for happiness

in our own lives. This paradox can be explored by comparing emotional responses to sad films vs. emotional responses to the recall of personally experienced sad events.

Although the theorists discussed above speculated on the intensity of emotional reactions to fiction, it is also important to consider the specific emotions that result from sad events experienced through fiction, nonfiction, and in our own lives. The study presented here was designed to examine both the sadness and the anxiety experienced in all three situations. Sadness and anxiety have been shown to co-occur in individuals with depression, as well as in individuals with no clinical diagnosis (Clark, 1989; Shankman & Klein, 2003). Both sadness and anxiety are negatively valenced, but sadness is a low arousal state, while anxiety involves high arousal (Feldman, 1995; Russell, 1980). This study was designed to test the hypothesis that the sadness experienced from fiction differs from the sadness experienced in “real life” by virtue of the fact that in the former case, sadness is unadulterated with anxiety, while in the latter case, the two are intertwined. Sorrow experienced in fiction need not be accompanied by anxiety since we know that when the curtain goes down or when we close the book, the sadness that has been generated will dissipate as we return to the real world. The difference between sadness alone, and sadness mixed with anxiety, may explain the apparent paradox that we enjoy sadness in fiction but strive to avoid sadness in our own lives.

#### The Current Study

Participants watched four clips from very sad films, half of which were presented as based on real events, and half of which were presented as entirely fictional (randomly counterbalanced across participants). Participants were asked to rate how sad and how anxious they felt after each viewing. They also judged whether they had ever experienced

anything like what had happened to the protagonist. After the film viewing, participants were asked to recall the saddest event of their lives and rate how sad and how anxious they recalled feeling at the time, and how sad and anxious they felt currently, when recalling the past event.

Films were chosen as stimuli because they have been shown to be effective means by which to create real emotional reactions in a laboratory setting (e.g., Rottenberg, Ray, & Gross, 2007). In a short amount of time, films allow viewers to engage with a range of situations and characters and to experience strong emotions.

The study was designed to address the following three issues.

*(1) Effects of perceived fictional vs. nonfictional status of film on intensity of sadness and anxiety experienced.*

The study was designed to explore three possible relationships between sadness and anxiety reactions to fictional vs. nonfictional films:

1. Nonfictional sad films elicit more intense (self-reported) sadness and anxiety than fictional films. Such a finding would be consistent with the reasoning of outraged readers when they found out that what they had taken to be nonfiction was actually entirely fictional.

2. Fictional sad films elicit more intense sadness and anxiety reactions than nonfictional films. Such a finding would be consistent with theorists arguing that there are differences between experiencing fiction vs. nonfiction.

3. Fictional and non-fictional sad films elicit equivalent levels of sadness and anxiety. Such a finding would be consistent with Coleridge's (1817/1983) notion that we willingly suspend our disbelief when we enter a fictional world.

Therefore:

*Hypothesis 1:* Nonfictional and fictional sad films elicit different amounts of sadness.

*Hypothesis 2:* Nonfictional and fictional sad films elicit different amounts of anxiety.

*(2) Effects of personal relevance of film on intensity of sadness and anxiety experienced*

A second question addressed whether the personal relevance (or resonance) of events portrayed in the film intensifies the levels of sadness and anxiety experienced. Previous work has shown that personal experience with an event in a story heightens our involvement with the narrative (Mar & Oatley, 2008). Readers who had previous knowledge, through a personal experience, of the events in a story reported feeling more transported into the story. Readers were also more transported when they held consistent beliefs with the story and when they perceived the story as more realistic (Green, 2004).

Therefore:

*Hypothesis 3:* Participants who have experienced an event similar to the protagonist feel more anxious than those who have not experienced an event similar to the protagonist.

*Hypothesis 4:* Participants who have experienced an event similar to the protagonist feel more sad than those who have not experienced an event similar to the protagonist.

These hypotheses were generated based on the belief that the ability to quiet one's appraisal system would be weakened due to the personal reminders in the film.

(3) *Self vs. other: Comparison of intensity of sadness and anxiety experienced from film vs. from events actually experienced.*

The study was also designed to compare emotional reactions to sad films vs. personally experienced sad events (both the reaction at the time, and the reaction resulting from recalling the personal event). It was hypothesized that emotional responses to sad films differ in two ways from emotional responses to actual sad events:

*Hypothesis 5:* Sadness in reaction to film is less intense than sadness in reaction to personal events.

*Hypothesis 6:* There is a relationship between sadness and anxiety in reaction to personal events, but not in reaction to film.

The experience of recalling a sad past experience was hypothesized to result in both anxiety and sadness but that the levels of each should be weaker than the levels recalled as having been experienced at the time. Autobiographical memories, particularly of emotional events, are easily recalled (Conway, Pleydell- Pearce, 2000; Talarico, Labar, & Rubin, 2004), but previous work has shown that the distance between the event and the recall of an autobiographical event affects the online emotional reaction (Walker, Vogl, & Thompson, 1997). Therefore:

*Hypothesis 7:* Recalling a sad past experience results in both anxiety and sadness.

*Hypothesis 8:* The levels of anxiety and sadness in recalling a sad past experience are negatively correlated with the passage of time since the event.

## Method

### *Participants*

Fifty-nine participants (21 male, 38 female) between the ages of 18 and 22 ( $M = 19.30$ ,  $SD = 1.03$ ) participated. Participants were undergraduate students who received research credit for their participation.

### *Materials*

Four short video clips were selected from four films. All four clips were from acclaimed movies or television shows that had been popular when released. A clip from *Love Story* showed the main character talking with his wife as she was dying, and then confronting his father, who had opposed the marriage. A clip from *Kramer v. Kramer* showed a child talking with his father about how he felt about his parents' divorce and custody battle. A clip from *The Laramie Project* showed a father describing how his son was tortured and killed for being gay. And a clip from *Dawson's Creek* showed a young mother, terminally ill, videotaping a message for her infant daughter to play as she grew up.

To ensure that the clips were perceived as *sad* and that they could be perceived as *realistic*, we asked four pilot participants to rate each clip on a 7-point Likert scale (from 1 = low to 7 = high) in terms of both sadness and realism. Participants judged the movies to be very sad ( $M = 5.32$ ,  $SD = 0.59$ ) and very realistic ( $M = 6.00$ ,  $SD = 0.45$ ).

Each clip was presented either as fiction or nonfiction, and both the order of the movies' presentation and whether they were presented as fiction or nonfiction were randomly counterbalanced across participants. For example, the fictional version of the clip from *Dawson's Creek* was introduced as "based on events that are entirely fictional. The writer, Kevin Williamson, imagined this experience in his twenties, and told reporters that none of the scenes in the movie really happened. He decided to write a

script based on his imagination.” The nonfiction version of this clip was presented as “based on events that really happened. The writer, Kevin Williamson, faced this experience, and told reporters that every scene in the movie really happened. He decided to write a script based exactly on his experience.” Table 1 lists each clip with the introduction to each version. Each participant watched two clips described as fictional, and two described as based on reality. Clips were presented in one of six counterbalanced orders.

After watching each clip, participants were asked to respond to the following set of questions, either with short answers, or on a 7-point Likert scale, with 1 being “not at all” and 7 being “extremely”.

1. Have you ever experienced anything like what happened to the [protagonist]? If YES, please describe.
2. How *sad* does this movie make you feel? (1-7 Likert Scale)
3. How *anxious* does this movie make you feel? (1-7 Likert Scale)

After watching all four clips, participants were asked to “write a description of the *saddest* thing you can remember happening in your life. Please try and pick a unique occurrence that made you feel very sad.” Participants were asked to respond to the following set of questions on a 7-point Likert scale, with 1 being “not at all” and 7 being “extremely”.

1. How sad did this event make you feel *at the time*?
2. How anxious did this event make you feel *at the time*?
3. How sad do you feel *now* about this event?
4. How anxious do you feel *now* about this event?

## Results

### *Fiction vs. Nonfiction*

Each participant received a combined score for each question for the two clips viewed as fiction, and the two viewed as nonfiction. A two-tailed paired *t*-test with fiction v. nonfiction as the within subject variable was used to test *Hypothesis 1*: Nonfictional and fictional sad films elicit different amounts of sadness and *Hypothesis 2*: Nonfictional and fictional sad films elicit different amounts of anxiety. Results showed no differences between clips viewed as fiction vs. nonfiction on amount of sadness or anxiety (see Table 2 for descriptive statistics). These results indicate that levels of sadness and anxiety as reactions to fiction are as strong as reactions to nonfiction, consistent with Coleridge's (1817/1983) view that when we enter into a fictional world, we willingly suspend our disbelief and react as if the fictional events were true.

### *Personal Relevance*

For three of the clips (from *Love Story*, *Dawson's Creek*, and *The Laramie Project*), the number of participants who had experienced an event that was similar to the protagonist in the clip was too small for analysis. However, 15 (out of 59) participants had experienced a parental divorce (the subject of *Kramer v. Kramer*). These were used to test *Hypothesis 3*: Participants who have experienced an event similar to the protagonist feel more anxious than those who have not experienced an event similar to the protagonist and *Hypothesis 4*: Participants who have experienced an event similar to the protagonist feel more sad than those who have not experienced an event similar to the protagonist, with a two-way MANOVA with experience and fiction/nonfiction as between subjects variables, and levels of sadness and anxiety as outcome variables. There

was a main effect of experience for the overall MANOVA,  $F(2,54) = 5.83$ ,  $p = .005$ ,  $d = .79$ , but no main effect of fiction/nonfiction, nor was there an interaction of the two predictors. There were main effects of experience individually for sadness  $F(1,58) = 4.10$ ,  $p = .048$ ,  $d = .54$ , and anxiety,  $F(1,58) = 9.80$ ,  $p = .003$ ,  $d = 1.28$ . Participants who had experienced parental divorce felt more sad and more anxious than did participants who had not experienced divorce. However, there was no effect for whether the film was presented as fiction or nonfiction, and no interaction of the two predictors (see Table 3 for descriptive statistics).

#### *Self vs. Other*

A within subjects repeated measures MANOVA (reaction to film vs. self) was used to test *Hypothesis 5*: Sadness in reaction to film is less intense than sadness in reaction to personal events. Because there was no difference between reactions to clips presented as fiction v. nonfiction, the mean levels of sad and anxious responses to the clips were used. As expected, there was a strong effect of the source for level of sadness reported: the level of sadness reported as having been personally experienced ( $M = 6.83$ ,  $SD = 0.42$ ) was significantly greater than the level of sadness reported as experienced in response to a movie ( $M = 4.82$ ,  $SD = 1.12$ ),  $F(1,58) = 188.00$ ,  $p < .001$ ,  $d = 24.69$ .

Support was also found for *Hypothesis 6*: There is a relationship between sadness and anxiety in reaction to personal events, but not in reaction to film. There was an effect of source for level of anxiety,  $F(1,58) = 100.58$ ,  $p < .001$ ,  $d = 13.20$ . Participants felt significantly more anxious when a sad event happened to them ( $M = 4.93$ ,  $SD = 2.00$ ) than when they watched it happen to someone else in a movie ( $M = 2.45$ ,  $SD = 1.11$ ). Descriptive statistics are shown in Table 2.

*Memory of self v. other.* A within subject repeated measures ANOVA (movie clip vs. memory of self) was used to test *Hypothesis 7*: Recalling a sad past experience results in both anxiety and sadness and *Hypothesis 8*: The levels of anxiety and sadness in recalling a sad past experience are negatively correlated with passage of time since the event. Again, because there was no previous difference in reactions to fiction v. nonfiction clips, scores were combined. There was no effect of source for level of sadness reported; surprisingly, thinking about the saddest event in a fictional other's life yielded identical levels of reported sadness as thinking about the saddest event in one's own life. There was, however, an effect of source for level of anxiety reported,  $F(1,58) = 6.95, p = .011, d = .91$ . As hypothesized, and as can be seen in Table 2, participants felt more anxiety when thinking about sadness in their own life ( $M = 3.10, SD = 1.90$ ) than when thinking about a presented other ( $M = 2.45, SD = 1.10$ ).

### Discussion

When James Frey was exposed as a fraud, readers were upset enough to bring a lawsuit, and public outcry was loud enough that he was dropped by his publisher. Yet, readers should not have worried. Generalizing from the results of this study, that levels of sadness and anxiety were unaffected by whether the clip was believed to be fiction or nonfiction, would suggest that their experience in reading the book as fiction would have been no less powerful than reading the book as nonfiction.

It is possible that participants were not convinced of the framing of the clips as non-fiction. I did consider showing documentary clips in order to ensure that participants truly believed the clip they watched was nonfiction. However, it was not possible to find a documentary that could *also* easily be presented as a work of fiction. Because the clips

were judged as very realistic by pilot participants prior to their administrators, it seems very likely that participants believed that they were watching nonfiction film clips.

The films presented were all realistic films, ones that presented events that could have happened. The manipulation used could not have been used for all genres of film, such as science fiction or fantasy films, and thus it is not possible to make about emotional reactions to other kinds of fictional films. Further research could explore other modes of engaging with fiction, such as watching a play or reading a book. Finally, these results are based on watching films in a laboratory, and it remains possible that responses would differ when watching in the privacy of one's own home, or on a large screen in a darkened movie theatre.

While the fictional status of the clip had no effect on sadness and anxiety, the personal relevance of the events in the clips did have a strong effect on levels of sadness and anxiety reported. Those participants who had experienced a parental divorce in their own lives, as did the character in *Kramer vs. Kramer*, reported higher levels of both sadness and anxiety compared to those who had not experienced such an event. The effect of personal relevance was equally strong for clips presented as fiction and as nonfiction. This finding is consistent with previous work demonstrating that personal experience with an event in a story, whether fictional or nonfictional, heightens our literary involvement (Green, 2004; Mar & Oatley, 2008).

The results of this study may help us to understand the differences and similarities between emotional reactions to tragic events in films vs. to tragic events in our own lives. Although the levels of sadness people report having felt at the time of the sad event were greater than levels felt when watching the clips, the levels reported from the act of

*recalling* the event were no greater than the levels felt when watching the clips. This finding was particularly surprising considering the traumatically sad events participants shared with us, including the death of a parent, the accidental death of a good friend, a serious medical diagnosis, and memories of September 11, 2001, along with what is known about the strength and realism of recalled autobiographical memory (Talarico, Labar, & Rubin, 2004). However, there was an important and telling difference in reactions to fiction vs. in reaction to the recall of a sad autobiographical event. When people recalled a tragic event that they had personally experienced, they felt not only sadness but also anxiety. In contrast, the sadness reported when witnessing a sad movie was unadulterated by anxiety. Perhaps this is because, as suggested by Coplan (2006), in our own lives we know the event will not go away, and we will have to keep dealing with the long term effect. But when watching a movie we know that when the film ends, we can walk away from that world. These findings help to clarify why it is that we willingly go to the movies knowing that we will experience sadness: apparently we do not mind experiencing intense sadness if that sadness is not tinged with anxiety.

This study may shed some light on the mystery of why we cry at sad films even when we know the events did not occur and the characters did not exist. It is possible that we do so because we have successfully suspended our disbelief. We have entered into the world of the film and have allowed ourselves to feel sadness equal in intensity to the sadness we feel in recalling tragedy personally experienced. Apparently, pure sadness that is not mixed with anxiety is not so unpleasurable that we avoid it. In contrast, we seek out this experience, willingly paying money to go to sad movies. Perhaps experiencing sadness in fiction allows us to explore and understand it, and this may make

us more prepared to deal with it in our real lives. We would not, however, choose to have a sad event occur in our own personal life, or to even recall a sad event in our own lives. We know that we cannot abandon a personal tragedy. But when we allow ourselves to experience a tragedy on screen we enjoy the feeling of sadness because we know that we can walk away. Perhaps because the sadness is unadulterated, it is cathartic.

References

- Carroll, N. (1996). *Theorizing the moving image*. New York: Cambridge University Press.
- Clark, L.A. (1989). The anxiety and depressive disorders: Descriptive psychopathology and differential diagnosis. In: Kendall, P.C. and Watson, D., (Eds). *Anxiety and depression: Distinctive and overlapping features*. Academic Press, San Diego, CA, pp. 83–129.
- Coleridge, S. T. (1817/1983). *Biographia literaria, or, Biographical sketches of my literary life and opinions*. Princeton, N.J. : Princeton University Press.
- Conway, M.A., Pleydell- Pearce, C.W. (2000). The construction of autobiographical memories in the self-memory system. *Psychological Review*, 107, 261-288.
- Coplan, A. (2004). Empathic engagement with narrative fictions. *The Journal of Aesthetics and Art Criticism*, 62, 141-152.
- Coplan, A. (2006). Caring about characters: Three determinants of emotional engagement. *Film and Philosophy*, 10, 1-19.
- Defonseca, M. (1997). *Surviving with Wolves*. New York: Portrait.
- Feldman, L. (1995). Valence focus and arousal focus: Individual differences in the structure of affective experience. *Journal of Personality and Social Psychology*, 69, 153-166.
- Frey, J. (2005). *A Million Little Pieces*. New York: Anchor.
- Green, M.C. (2004). Transportation into narrative worlds: The role of prior knowledge and perceived realism. *Discourse Processes*, 38, 247-266.

- Harris, P.L. (1998). Fictional absorption: Emotional responses to make-believe. In Braten, S. (Ed). *Intersubjective communication and emotion in early ontogeny*. Paris, France: Cambridge University Press.
- Harris, P.L. (2000). *The work of the imagination*. MA, USA: Blackwell Publishers.
- Keen, S. (2006). A theory of narrative empathy. *Narrative, 14*, 207-236.
- Keen, S. (2007). *Empathy and the novel*. New York: Oxford University Press.
- Leroy, J.T. (2001). *Sarah: A Novel*. New York: Bloomsbury.
- Mar, R.A. & Oatley, K. (2008). The function of fiction is the abstraction and simulation of social experience. *Perspectives on Psychological Science, 3*, 173- 192.
- Mellmann, K. (2002). E-Motion: Being moved by fiction and media: Notes on fictional worlds, virtual contacts and the reality of emotions. *PsyArt: A Hyperlink Journal for the Psychological Study of the Arts*, article 020604. Available HTTP: [http://www.clas.ufl.edu/ipa/journal/2002\\_mellmann01.shtml](http://www.clas.ufl.edu/ipa/journal/2002_mellmann01.shtml), Nov 8, 2007.
- Oatley, K. (1999). Why fiction may be twice as true as fact: Fiction as cognitive and emotional simulation. *Review of General Psychology, 3*, 101-117.
- Peskin, J., Astington, J.W. (2004). The effects of adding metacognitive language to story texts. *Cognitive Development, 19*, 253-273.
- Rottenberg, J., Ray, R.D., & Gross, J.J. (2007). Emotion elicitation using films. In J. A. Coan, & J. J. B. Allen (eds). *The Handbook of Emotion Elicitation and Assessment*. New York: Oxford University Press, USA, pp. 9-28.
- Russell, J.A. (1980). A circumplex model of affect. *Journal of Personality and Social Psychology, 39*, 1161-1178.

- Russell, J.A., Weiss A., & Mendelsohn, G.A. (1989). Affect Grid: A single-item scale of pleasure and arousal. *Journal of Personality and Social Psychology*, 57, 493-502.
- Shankman, S.A. & Klein, D.A. (2003). The relation between depression and anxiety: an evaluation of the tripartite, approach-withdrawal and valence-arousal models. *Clinical Psychology Review*, 23, 605-637.
- Talarico, J.M., Labar, K.S., & Rubin, D.C. (2004). Emotional intensity predicts autobiographical memory experience. *Memory & Cognition*, 32 (7), 1118-1132.
- Walker, W. R., Vogl, R. J., & Thompson, C. P. (1997). Autobiographical memory: Unpleasantness fades faster than pleasantness over time. *Applied Cognitive Psychology*, 11, 399-413.
- Zunshine, L. (2006). *Why we read fiction: Theory of mind and the novel*. Columbus, OH: The Ohio State University Press.
- Zwaan, R. A. (1994). Effect of genre expectation on text comprehension. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 20, 920-933.

Table 1. *Introductions to Fiction versus Reality versions of each movie clip*

Movie	Fiction	Reality
Dawson's Creek	The next (first) clip is from a film based on events that are entirely fictional. The writer, Kevin Williamson, imagined this experience in his twenties, and told reporters that none of the scenes in the movie really happened. He decided to write a script based on his imagination.	The next (first) clip is from a film based on events that really happened. The writer, Kevin Williamson, faced this experience in his twenties, and told reporters that every scene in the movie really happened. He decided to write a script based exactly on his experience.
Kramer v. Kramer	The next (first) clip is from a film based on events that are entirely fictional. The movie is based on a novel by Billy Kramer about the childhood of a small boy. Kramer told reporters that he wanted to make a movie about how a fictional child experienced the conflict that his parents went through when they got divorced.	The next (first) clip is from a film based on events that really happened. The movie is based on a true memoir by Billy Kramer about his childhood when he was a small boy. Kramer told reporters that he wanted to make a movie about how he experienced the conflict that his parents went through when they got divorced.
The Laramie Project	The next (first) clip is from a film based on events that are entirely	The next (first) clip is from a film based on events that really

	<p>fictional. This film is based on a fictional story of a homophobic hate crime in a small town. The actors featured collaborated with the writer/director, Moisés Kaufman, because they were concerned about the issues raised by this crime even though it never actually occurred.</p>	<p>happened. This film is based on a true story of a homophobic hate crime in a small town. The actors featured collaborated with the writer/director, Moisés Kaufman, because they were concerned about the issues raised by this crime that actually occurred.</p>
Love Story	<p>The next (first) clip is from a film based on events that are entirely fictional. The screenwriter/director, Oliver Barrett, stated in interviews in TIME and Life magazine that he wrote every scene in the movie entirely from his imagination. He hoped that by dramatizing this story from his imagination, his film would help young couples to appreciate their love and not let differences in social standing or other trivial matters get in the way.</p>	<p>The next (first) clip is from a film based on events that really happened. The screenwriter/director, Oliver Barrett, stated in interviews in TIME and Life magazine that he wrote every scene in the movie exactly as he remembered it. He hoped that by documenting his personal experience as it happened, his film would help young couples to appreciate their love and not let differences in social standing or other trivial matters get in the way.</p>

Table 2. *Mean ratings of sadness and anxiety for fiction, nonfiction, personal events at the time of the event and current memory of personal events.*

	Sadness		Anxiety	
	M	SD	M	SD
Fiction	4.77	1.30	2.39	1.26
NonFiction	4.88	1.27	2.52	1.31
Personal Event at the Time	6.83	0.42	4.93	2.00
Memory of Personal Event	4.95	1.49	3.10	1.90

Table 3. *Means and SDs on each outcome when watching Kramer v. Kramer, Experienced with Divorce v. Not experienced with divorce*

	Experienced Divorce		No Experience with Divorce	
	Mean	SD	Mean	SD
Sad*	5.20	1.56	4.18	1.54
Anxious**	2.93	1.79	1.77	0.98

\*  $p < .05$ , \*\*  $p < .01$

### Acknowledgements

This research was performed while the author was on appointment as a U.S. Department of Homeland Security (DHS) Fellow under the DHS Scholarship and Fellowship Program, a program administered by the Oak Ridge Institute for Science and Education (ORISE) for DHS through an interagency agreement with the U.S. Department of Education (DOE). ORISE is managed by Oak Ridge Associated Universities under DOE contract number DE-AC05-00OR22750. All opinions expressed in this paper are the author's and do not necessarily reflect the policies and views of DHS, DOE or ORISE.

I would like to thank Nick Ackerman, Katelyn Coleman, Jessica DeLuca, Kaitilin Mahoney, Emma Raccioppo, Jenny Suh, Shelbi Thureau, Louis Tullo, and Jeremy Yancey for their aid in data collection. Ellen Winner and three anonymous reviewers provided extremely helpful comments on an earlier version of this manuscript.