Empathy for adolescents' role model selection and learning of DVD content

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Available online 5 July 2006

Abstract

Male and female high school and college students viewed a DVD about a love story. Youth who more readily empathized with media characters were more likely to perceive same-sex characters as role models and were better able to understand the story content. The findings suggest that fantasy empathy, in which viewers become deeply involved in narratives, may hold a key regarding the influence of media characters and media presentations. That is, certain viewers may be particularly influenced by fictional media portrayals and learn and understand the content at a deeper level. In addition, the kinds of role models presented in these portrayals may provide a guide to similar problems that these viewers may encounter in real life. The findings have implications for the kinds of films and DVDs that producers make for audiences of different ages and experiential backgrounds. © 2006 Elsevier Inc. All rights reserved.

Keywords: Adolescents; Perception of media characters; Fantasy empathy; Identification; Media influence; Understanding DVD messages

1. Introduction

Media experiences often evoke strong emotional reactions from viewers (Cantor, 2002). Youth who become emotionally involved with media characters may select these individuals as role models, becoming engaged in their experiences and potentially transferring what they learn from these imaginary stories to their own lives (see Bandura, 1986). Such links should be stronger for those who can most easily put themselves into the "shoes" of another person, a process known as empathy (Davis, 1996).

The purpose of the present study was to examine adolescent viewer tendencies to create empathic connections to media characters as predictors of their empathic feelings for characters, role model selections, and learning of media content. We focused on a love story because romance transcends all genres of fiction (Voytilla, 1999) and potentially carries emotional valence, an elicitor of empathic responses. These purported links among viewer empathy, role model selections, and plot comprehension are important ones, for they shed light on who may be most influenced and likely to imitate the content that they view at the movie theater or in the privacy of their own homes as well as on the kinds of content that are most appropriate for youth at different points in their development.

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1.1. The role of empathy in fiction

Empathy is a multidimensional construct in which a person is able to take the perspective of another in ways that facilitate an emotional connection with that individual (Campbell and Babrow, 2004; M. H. Davis, 1983; Hoffman, 2001). M.H. Davis (1983) developed the Interpersonal Reactivity Index (IRC) to measure various subcomponents of empathy. These subcomponents include *fantasy*, the tendency to immerse oneself in the fictional lives of characters and to identify with those characters; *empathic concern*, the tendency to feel compassion and sympathy for those less fortunate than oneself; *perspective-taking*, the tendency to try to take and understand another's perspective in daily experiences; and *personal distress*, the tendency to feel upset by the painful experiences of others (Davis, 1996).

While much of the empathy research involves the study of real persons (e.g., Hoffman, 2001), fictional characters may play an important role in empathic responses as well. In particular, viewers who heavily expose themselves to the imaginary stories of fictional characters may suspend reality and treat those characters "as if" they are real (Zillmann, 1982). Those who score highly on fantasy empathy, for example, are more withdrawn in social situations, suggesting that they may feel more at home in the fantasy world of books and media (M. H. Davis, 1983). Those who feel empathy for a character may also identify more with that individual, momentarily losing oneself in the perspective and feelings of that character (Campbell & Babrow, 2004). For these reasons, fantasy empathy (Davis, 1996) may be the most important empathic dimension in determining who will be most influenced by media portrayals. Those who are the same sex, which is particularly true of males, and a similar age as media characters – and hence who are most likely to share normative life experiences with them – are also more likely to identify with them (Calvert, Murray, & Conger, 2004; Zehnder & Calvert, 2004). In part this occurs because these individuals share an emotional bond with a character, i.e., feel more empathy for them (Hoffner & Buchanan, 2005).

One type of fictional portrayal that is designed to elicit feelings from viewers is the romantic love story. In Voytilla's (1999) analysis of the mythic structure of films, the root of romantic stories often involves forbidden love. Conflict is created in this genre by presenting characters who long for love that they cannot have. The quest for that love can often result in tragic consequences, but it can also result in rebirth for those that embark on this quest.

Stories about the quest for love and its ability to purify the darkest of souls begin with fairy tales like Disney's *Beauty and the Beast* and continue into the adult years with tragedies like Shakespeare's *Romeo and Juliet*. Through love, the main character understands life's purpose more fully and is willing to make sacrifices to achieve love. In such instances, love can be an outgrowth of empathy and concern for the well-being of others (Allot, 1992). Females tend to like romantic portrayals more so than males (Huston, Wright, Rice, Kerkman, & St. Peters, 1990), suggesting that they will become more involved in these plots. Because we were interested in the role that empathy plays in adolescents' processing of DVDs, we selected a story about a man who was riddled by a dark past and who was transformed by the love of a woman.

1.2. Age and empathic engagement as predictors of comprehension

Age is a clearly documented predictor of story comprehension, but it is generally a differentiating factor during grade school, not adolescence (Calvert, 1999). Mature comprehension of televised narratives occurs around ages 9–10 years when children begin to understand the implicit, hidden central content about character motivations and feelings that are essential to plot comprehension (Collins, Wellman, Keniston, & Westby, 1978). Less information is known about children's understanding of the comparatively complex stories found in DVDs and movies where subplots are woven into the main plot lines, but recent studies that examined comprehension of heroic DVD content demonstrate that high school students understand less content than college students do (Calvert et al., 2004; Zehnder & Calvert, 2004).

Age differences in learning during the adolescent years may be related to differential personal experiences and involvement with the symbolic experiences presented in media rather than to general stage-related changes in comprehension patterns that occur earlier in development. In particular, one must understand how a person got to the situation that they are currently experiencing, in part by understanding the hidden content such as character motives and feelings, to truly empathize with their situation (Eisenberg, 1987). Sharing similar experiences may facilitate this

process. In this way, similar experiences, advanced plot comprehension and empathy may be intertwined. Early studies by the Payne Foundation conducted during the 1930s found that children learned about 60% of the content that they viewed in movies, with youth being particularly likely to remember content that involved themes that were similar to their own lives (Jowett, Jarvie & Fuller, 1996). These familiar themes may resonate with their own life experiences, perhaps evoking more empathic responses and feelings from viewers. Because youth report first being "in love" at around age 17.5 years old and first being in a "serious relationship" at around age 18 (Regan, Durvasula, Howell, Ureno, & Rea, 2004), we expected college students to understand a story about love and to empathize and to identify with the main characters better than high school students.

1.3. Hypotheses of the present study

The present study describes naturally occurring relations among characteristics of viewers, particularly their age, sex, and fantasy empathy scores, in relation to their selection of role models and their understanding of the story content of a DVD about the role of love in overcoming dark impulses. Understanding how DVD messages differentially impact viewers could provide a window into how youth use media messages to guide their own life experiences.

Our hypotheses were (1) those students who were more empathic (particularly on the fantasy subscale of the Interpersonal Reactivity Index, which specifically targets emotional and identification links to imaginary characters) were expected to be more likely to (a) like the program; (b) empathize with the characters and perceive them in a positive light; (c) identify with the characters; and (d) understand the program content better because they are able to see the story from the character's perspective and were more emotionally involved in the program; (2) consistent with earlier research, participants were expected to identify more with same-gender characters (Anderson & Cavallaro, 2000; Bandura, 1986); this was predicted to be particularly true for male participants; and females were expected to like the romantic content more than males (Huston et al., 1990); and (3) consistent with prior findings (Calvert et al., 2004; Zehnder & Calvert, 2004), older participants were expected to understand the content, empathize with the characters, identify with the characters, and like the content more than younger participants because their life experiences were more likely to be similar to those of the main characters, i.e., in this instance they were more likely to have been in a serious romantic relationship.

2. Method

2.1. Participants

We recruited students from psychology courses at a private university and a public high school in a large metropolitan area. Undergraduate students received extra course credit for participating in the study and high school students received free pizza and drinks as well as extra credit. There were 258 students (169 females and 89 males) attending high school ($n=131$; Mean age=17 years, 4 months, $SD=8.8$ months) or college ($n=127$; Mean age=20 years, 7 months, $SD=13.6$ months). The ethnic background of participants was 172 (67%) European-American, 25 (10%) Asian-American, 19 (7%) Latino, 14 (5%) African-American, 15 (6%) self-identified as multiple ethnicities, and 13 (5%) did not specify ethnicity. Compared to the most recent Census data (US Census Bureau, 2000), more youth from Asian and mixed ethnic backgrounds and fewer youth from African American and European-American backgrounds participated than was typical in the United States. The 2000 Census data also reported higher numbers of Latinos than were included in our sample, but this category was mutually exclusive in our sample and not in the Census data. Because the movie was released in 1993, only 9 of 254 participants had previously seen it (an additional 4 participants did not answer the question about prior exposure).

2.2. The stimulus DVD

The stimulus was a 1 h, 54 min DVD called *Sommersby*. It was originally distributed in 1993 as a film that developed a forbidden love theme as a key focal point of character development. The general themes of this movie also appeared in a French version titled *The Return of Martin Guerre* in which a man impersonated a woman's husband (Davis, N.Z., 1983).

The *Sommersby* plot involves a man named Jack Sommersby who returned from a prisoner of war camp after the Civil War to rejoin his wife and son on their Southern plantation. Presumed dead, his wife Laurel had become involved with a man named Orin. As the story progresses, it becomes apparent that Sommersby had not been a kind and gentle husband, instead choosing a life of drinking and detachment from his family.

Although the returning man physically resembles Jack, clues emerge that he may be an imposter. His dog doesn't recognize him, his shoes are no longer the same size, he fights with former members of his troop who are passing through the area, and he becomes committed to Civil Rights. Most importantly, "Jack" becomes passionately involved with his wife, from whom he had been physically and emotionally estranged before leaving for the war. Jack has become a new man, or so it seems.

Jack convinces the townspeople to invest in their future by giving him a considerable amount of money and goods to purchase tobacco seeds. He is gone an excessively long time on a trip to purchase the seeds but finally returns. Laurel gets pregnant and gives birth to their daughter, the tobacco crop flourishes, and Jack is arrested for a previous murder of a man from another town. During the trial, Orin makes a deal with Laurel: if she returns to him, Orin will arrange to spare Jack's life. Laurel agrees.

Jack's true identity is then unveiled at the trial. Laurel testifies that this man is not her husband. Another witness testifies that "Jack's" real name is Horace Townsend—a thief, coward, and womanizer. Jack fires his lawyer and tries to convince the judge that he is Jack Sommersby. He questions Laurel on the witness stand, and she finally admits that she knows he is not Jack because she never loved Jack the way she loves him. He asks Laurel if in her heart, he is her husband. She replies yes, leaving the judge no option but to sentence him to death because in taking Jack's identity, he had taken his crimes.

Before dying, Jack reveals to Laurel that during the war, he was imprisoned with the real Jack Sommersby and assumed his identity when that man died. Although he was originally born Horace Townsend, he was reborn a better man, a different man, when he became her husband. She wants him to live, but he chooses to die rather than become Horace Townsend again, as he would lose all that he had become. Jack is executed as Laurel watches. The story ends with the town being rebuilt and Laurel placing flowers on the grave of her husband. The town has experienced rebirth from the successful sale of their first major tobacco crop, the crop that the new Jack had convinced them was the key to their future and to a new beginning.

2.3. Measures and procedures

Prior to viewing the DVD, each participant answered questions from the Interpersonal Reactivity Index. They subsequently viewed the *Sommersby* DVD in groups and later answered questions about their perception of the program characters as well as their understanding of the program plot. The DVD was shown to students in their regular classrooms, so the largest group sizes were similar to what they would have experienced in class—about 50 for the college students and 35 for the high school students. Experimenters monitored all sessions and the high school sessions were monitored by teachers as well. When students attempted to interact during or after the movie, they were reminded that the study involved their own opinions about the movie and that they could talk about it when the session was over.

2.3.1. Interpersonal reactivity index

Each participant completed the Interpersonal Reactivity Index (IRC). The IRC, developed by M.H. Davis (1983), consists of a 28 item, 5 point (1="not well" to 5="very well") Likert scale, comprised of 4 subscales that measure an individual's responsiveness to others. These subscales include perspective-taking, empathic concern, fantasy, and personal distress. Nine questions of the IRC are reverse-scored. The test–retest associations are 0.61 to 0.81 over a two month timeframe and 0.50 to 0.62 over 2 years (Davis, 1996; Davis and Franzoi, 1991). The internal consistency estimates of the scales range from 0.70 to 0.78 (Davis, 1996). For our sample, the internal consistencies for the 4 subscales (7 items per subscale) using Cronbach's alpha were 0.78 for fantasy, 0.79 for empathic concern, 0.75 for personal distress, and 0.79 for perspective taking.

For each question, participants selected one of five responses ranging from a 1 ("does not describe me at all") to 5 ("describes me very well"). A sample empathic concern question is "I often have tender, concerned feelings for people less fortunate than me." A sample perspective taking question is "I believe there are two sides to

every question and try to look at them both." A sample personal distress item is "When I see someone who badly needs help in an emergency, I go to pieces."

Because of our interest in emotional reactions to the experiences of imaginary media characters, we were particularly focused on the fantasy subscale, which consists of 7 questions that assess an individual's involvement, empathy, and identification with a fantasy character. These questions included (1) "I daydream and fantasize, with some regularity, about things that happen to me"; (2) "I really get involved with the feelings of the characters in a novel"; (3) "I am usually objective when I watch a movie or play, and I don't often get completely caught up in it" (reverse scored); (4) "becoming extremely involved in a good book or movie is somewhat rare for me" (reverse scored); (5) "after seeing a play or movie, I have felt as though I were one of the characters"; (6) "when I watch a good movie, I can very easily put myself in the places of a leading character"; and (7) "when I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me."

2.3.2. Comprehension of DVD content questionnaire

Following procedures adapted from Collins et al. (1978), two members of a research team initially viewed the DVD and created open-ended verbal comprehension items in the form of a question. Then a group of nine individuals from the research team rated each question either as central and relevant to the plot or incidental and irrelevant to the plot. Consistent with the procedures of Collins et al. (1978), each item in which 70% of the raters agreed that the question was central to the plot was retained, resulting in 27 total questions. These questions were placed in an open-ended questionnaire that students answered after viewing the DVD. Two questions were later dropped, one because of its similarity to another question and the other because the question was ambiguous. This yielded a total of 25 questions.

Two independent raters scored the participants' responses to central items. An example of a central item was "Why did Laurel eventually say that the man on trial was her husband?" Scores of 1–3 points were awarded for each response. A score of 1 was given if students did not answer the question correctly (e.g., "So he could get the punishment he deserved"); a score of 2 was given for partial understanding of the question (e.g., "She had to because he wouldn't give in"); and a score of 3 was awarded for a thorough understanding of a question ("In her heart, he was her husband"). Interrater reliability was computed for 20% of the data using Cohen's kappa. This yielded a score of 0.65, which falls in the good range (Landis & Koch, 1977). The internal consistency of the 25 comprehension item responses was computed using Cronbach's alpha, yielding a score of 0.73.

Students were asked if they had seen the program before; virtually none of them had. Following procedures previously developed (see Calvert et al., 2004; Zehnder and Calvert, 2004), the questionnaire also presented 25 Likert items on a 5-point scale to assess (1) liking of the story (1 item), (2) selection of the two main characters – Laurel and Jack – as role models (2 items), and (3) perceptions of the personal qualities of each of the two main characters that make them worthy as role models (high for morality, heroism, thinking before acting, compassion, honesty, control over destiny, and pride, and low on aggression, vengeance, and evilness; 20 items); and (4) viewer self-reports about their empathy for the two main characters (2 items). The internal consistency for perceptions of the two main characters role model qualities was computed using Cronbach's alpha, yielding a score of 0.70. There was also one open-ended question asking viewers how they felt following the film. Reports of sadness and depression were awarded a score of 3 as the feelings were consistent with the story ending (i.e., one of the main characters dies), a 2 was awarded for other emotional responses (e.g., frustrated, scared, sappy), and a 1 was awarded for little or no emotional response (e.g., bored, tired, indifferent). Interobserver reliability for the emotion scale was 0.89 using Cohen's kappa. All questions were arranged in one questionnaire that students answered immediately after viewing the program. It took about 45 min to complete this task.

3. Results

3.1. Liking the DVD

Female students, older students, and those who empathized with fantasy characters were expected to like the DVD the most. Stepwise linear regression analyses were conducted entering participant sex and age in step one,

Table 1
Summary of linear regression analysis predicting liking of the DVD

Predictors	B	SE	Beta	t	Signif.
1. Age in months	0.01	0.00	0.29	4.71	.000
2. Sex	0.66	0.14	0.30	4.86	.000
3. Interpersonal Reactivity Index					
Fantasy Score	0.03	0.01	0.14	2.23	.027
Empathic Concern	−0.00	0.02	−0.01	−0.08	.933
Perspective Taking	0.01	0.01	0.06	0.88	.378
Personal Distress	−0.01	0.01	−0.07	−1.02	.311

Note. Male = 1; Female = 2. R^2 total = 20%; $F(6, 250) = 10.37$, $p < .001$.

followed by the 4 interpersonal reactivity scales: fantasy, empathic concern, perspective taking, and personal distress. The regression model for liking the DVD was significant, R^2 Total = 20%, $F(6, 250) = 10.37$, $p < .001$ (see Table 1). Females, college students, and those who scored higher on the IRC fantasy scale liked the DVD more than their counterparts. The other empathy subscores were not significant predictors for liking the DVD content.

3.2. Interrelationship of empathy measures

Correlations among the subscores of the Interpersonal Reactivity Index, empathy for characters, feelings measures, and comprehension scores are presented in Table 2. As the table shows, the fantasy subscale scores of the IRC were significantly correlated with the three other IRC subscores. Only the IRC subscores on personal distress and perspective taking were not significantly correlated.

The fantasy, empathic concern, personal distress and perspective taking subscores of the IRC were significantly correlated with the empathic feelings for the main characters in the DVD. The fantasy and the personal distress subscale scores were significantly correlated with emotional affect after viewing the DVD, but only the fantasy subscale scores were correlated with comprehension of the plot. Viewer feelings were also significantly correlated with empathic feelings for both of the main characters and with comprehension of the content. Overall, those who scored higher on the fantasy subscale of the IRC felt more empathy for the characters, reported sad and depressed feelings after viewing the DVD, and also understood the program content best.

Table 2
Pearson product moment correlations among subscores of the Interpersonal Reactivity Index, Empathy for Characters, and Feelings after Viewing and Comprehension

	Fantasy Scale	Empathic Concern	Perspective Taking	Personal Distress	Empathy for Laurel	Empathy for Jack	Feelings after Viewing	Comprehension
Fantasy Scale	1	0.34***	0.25***	0.29***	0.22***	0.25***	0.19**	0.14*
Empathic Concern	0.34***	1	0.49***	0.27***	0.19**	0.17**	0.04	0.07
Perspective Taking	0.25***	0.49***	1	0.01	0.16**	0.22***	0.08	0.05
Personal Distress	0.29**	0.27**	0.01	1	0.13*	0.12*	0.17**	−0.09
Empathy for Laurel	0.22***	0.19**	0.16**	0.13**	1	0.42***	0.27***	0.21***
Empathy for Jack	0.25***	0.17**	0.22***	0.12*	0.42***	1	0.23***	0.08
Feelings after Viewing	0.19**	0.04	0.08	0.17**	0.27***	0.23***	1	0.13*
Comprehension	0.14*	0.07	0.05	−0.09	0.21***	0.08	0.13**	1

Note. N = 258; 169 females.
*$p < .05$. **$p < .01$. ***$p < .001$.

Table 3
Summary of stepwise linear regression analysis predicting identification with Laurel

Predictors	B	SE	Beta	t	Signif.
1. Age in Months	0.01	0.00	0.23	3.83	.000
2. Sex	0.49	0.15	0.21	3.38	.001
3. Interpersonal Reactivity Index					
Fantasy Score	0.04	0.01	0.20	3.23	.001
Empathic Concern	0.01	0.02	0.05	0.75	.455
Perspective Taking	0.00	0.02	−0.00	−0.03	.976
Personal Distress	0.02	0.02	0.10	1.45	.148

Note. Male = 1; Female = 2. R^2 total = 18%; $F(6, 251) = 8.99$, $p < .001$.

3.3. Selection of characters as role models

Females who empathized with fantasy characters were expected to select the female character Laurel as a role model, whereas males who empathized with fantasy characters were expected to select the character Jack as a role model. We conducted stepwise linear regression analyses entering participant sex and age as predictors of role model selection scores in step one, followed by the 4 interpersonal reactivity scales: fantasy, empathic concern, perspective taking, and personal distress. The results are presented in Table 3.

The regression model for identification with Laurel as a role model was significant, R^2 Total = 18%, $F(6, 251) = 8.99$, $p < .001$. As seen in Table 3, female participants, college students, and those who scored higher on the IRC fantasy scale were more likely to identify with Laurel than their counterparts. The other empathy subscores were not significant predictors of identification.

The regression model for identification with Jack was also significant, R^2 Total = 12%; $F(6, 251) = 5.62$, $p < .001$. As seen in Table 4, males, college students, and those who scored higher on the IRC fantasy scale were significantly more likely to identify with Jack. The other empathy subscores were not significant predictors of identification.

3.4. Comprehension of the program content

The mean for comprehension scores was 58.76 ($SD = 6.41$) with a range of 37–74 out of a total possible score of 75. To analyze comprehension of the program content, we conducted a stepwise regression entering participant age and sex on the first step, followed by the four IRC scores (fantasy, empathic concern, perspective taking, personal distress), followed by identification with Laurel and Jack. In this way, we removed any influence of person factors before looking at identification as a predictor of comprehension. The regression equation was significant, R^2 Total = 19%; $F(8, 249) = 7.20$, $p < .001$. As seen in Table 5, scores for older ages, females, fantasy empathy, and identification of Laurel as a role model predicted program content comprehension scores. None of the other IRC empathy scores or selection of Jack as a role model were significant predictors of comprehension.

Table 4
Summary of stepwise linear regression analysis predicting identification with Jack

Predictors	B	SE	Beta	t	Signif.
1. Age in Months	0.02	0.00	0.26	4.03	.000
2. Sex	−0.49	0.18	−0.18	−2.81	.005
3. Interpersonal Reactivity Index					
Fantasy Score	0.03	0.02	0.13	2.01	.046
Empathic Concern	0.02	0.02	0.07	0.90	.368
Perspective Taking	0.03	0.02	0.09	1.33	.184
Personal Distress	0.03	0.02	0.12	1.79	.075

Note. Male = 1; Female = 2. R^2 total = 12%; $F(6, 251) = 5.62$, $p < .001$.

Table 5
Summary of stepwise linear regression analysis predicting comprehension of content

Predictors	B	SE	Beta	t	Signif.
1. Age in Months	0.08	0.02	0.30	4.74	.000
2. Sex	1.82	0.90	0.14	2.02	.044
3. Interpersonal Reactivity Index					
Fantasy Score	0.17	0.08	0.14	2.12	.035
Empathic Concern	0.09	0.10	0.06	0.86	.389
Perspective Taking	−0.13	0.09	−0.10	−1.40	.162
Personal Distress	−0.15	0.09	−0.11	−1.69	.092
4. Role Model Selection					
Laurel as Role Model	0.88	0.41	0.15	2.15	.033
Jack as Role Model	0.11	0.34	0.02	0.32	.751

Note. Male = 1; Female = 2. R^2 Total = 19%; $F(8, 249) = 7.20$, $p < .001$.

3.5. Role model qualities

We further examined the qualities of Laurel and Jack that made them appealing to viewers by correlating empathy for the characters and role model selections to perceived qualities of the characters. As seen in Table 6, empathic feelings for same-sex characters were positively related to selecting them as role models. Males and females who empathized with opposite-sex characters perceived them as role models.

Overall, those who felt more empathy for Laurel and Jack and who selected them as role models were more likely to perceive the characters as heroic, as compassionate, as thinking before acting, as moral, honest, and proud, and less likely to be evil or vengeful (see Tables 6 and 7). Participants' level of selecting Laurel as a role model was related positively to perceptions of her aggressiveness, and females who viewed Laurel as a role model thought that she had more control of her destiny.

We examined correlations between empathy for characters and role model selection to comprehension of content for male and female participants. There were significant correlations linking females' empathy for the characters

Table 6
Pearson product moment correlations among empathy for characters, perceptions of characters, and comprehension scores by male and female viewers

Perceptions of Laurel and Comprehension Scores

	Laurel Role Model	Laurel Hero	Laurel Compassion	Laurel Think before act	Laurel Control	Laurel Moral	Laurel Honest	Laurel Proud	Laurel Evil	Laurel Vengeful	Laurel Aggressive	Comprehension
Empathy for Laurel	0.37***	0.40***	0.40***	0.16*	−0.03	0.26***	0.23***	0.33***	−0.23***	−0.15*	0.12	0.21**
females	0.34***	0.37***	0.41***	0.12	−0.08	0.30***	0.25***	0.28***	−0.29***	−0.11	0.06	0.17*
males	0.26*	0.42***	0.47***	0.24*	0.08	0.20	0.19	0.39***	−0.19	−0.25*	0.10	0.19

Perceptions of Jack and Comprehension Scores

	Jack Role Model	Jack Hero	Jack Compassion	Jack Think before act	Jack Control	Jack Moral	Jack Honest	Jack Proud	Jack Evil	Jack Vengeful	Jack Aggressive	Comprehension
Empathy for Jack	0.39***	0.38***	0.37***	0.24***	−0.10	0.25***	0.23***	0.15*	−0.42***	−0.18**	0.04	0.08
females	0.41***	0.49***	0.46***	0.21**	−0.04	0.38***	0.29***	0.23**	−0.47***	−0.22**	0.06	0.03
males	0.43***	0.28**	0.27**	0.34***	−0.14	0.07	0.11	0.04	−0.32**	−0.15	−0.04	0.10

Note. N = 258; 169 females.
*$p < .05$. **$p < .01$. ***$p < .001$.

Table 7
Pearson product moment correlations among role model selection, character perceptions, fantasy empathy, and comprehension scores by males and female viewers

	Hero	Compassion	Think before act	Control	Moral	Honest	Proud	Evil	Vengeful	Aggressive	Empathy for Character	Fantasy empathy	Comprehension
Perceptions of Laurel, Fantasy Empathy, and Comprehension Scores													
Laurel as Role Model	0.39***	0.25***	0.24***	0.11	0.23***	0.19**	0.29***	−0.14*	−0.12	0.14*	0.37***	0.27***	0.26***
females	0.37****	0.28***	0.24**	0.20*	0.23**	0.17*	0.27***	−0.16*	−0.16*	0.13	0.34***	0.27***	0.22**
males	0.38***	0.23*	0.31**	−0.04	0.23*	0.23*	0.28**	−0.18	−0.12	0.04	0.26*	0.10	0.27*
Perceptions of Jack, Fantasy Empathy, and Comprehension Scores													
Jack as Role Model	0.39***	0.24***	0.16**	−0.04	0.37***	0.29***	0.10	−0.33***	−0.11	0.01	0.39***	0.14*	0.15*
females	0.41***	0.23**	0.17*	−0.12	0.45***	0.36***	0.09	−0.30***	−0.14	0.04	0.41***	0.21**	0.15*
males	0.31**	0.25*	0.11	0.08	0.20	0.21*	0.13	−0.42***	−0.05	−0.01	0.43***	0.09	0.19

Note. N = 258; 169 females.
*p<.05. **p < .01. ***p < .001.

and their perceptions of Laurel and Jack as a role model to better plot comprehension. Males who perceived the character Laurel as a role model also understood the content better (see Tables 6 and 7).

4. Discussion

The purpose of this study was to examine the role of empathy in adolescents' selection of role models as well as their understanding of a tale of love presented via a DVD. The results suggest that one kind of empathy-fantasy empathy-is particularly predictive of emotional involvement with the characters, affect, role model selections, and learning the program content. The findings are consistent with Davis's (1996) formulation that involvement with fantasies presented via books or visual media can influence understanding of the content of the story. Because the fantasy empathy measure was collected prior to viewing the DVD in the present study, the direction of the relationship is from initial tendencies to feel empathy for characters to empathy for specific characters, role model selection, feelings, and learning.

Immersion in a story requires people to suspend reality and to allow pretense to influence them (Zillmann, 1982). Our findings suggest that adolescents who are higher in fantasy empathy can do just that. In particular, vicarious experiences, as would occur in relation to role models in social learning theory (Bandura, 1986, 1997), can forge emotional links to characters that engage and embed viewers in the perspective of others, thereby facilitating their understanding of the motivations and reasons for the decisions that these characters make. The finding that emotional feelings that are tied to the outcome of the DVD – in this case sadness and depression over the death of one of the main characters – are associated with better comprehension of the program plot suggests the importance of affective involvement for accurate processing of video narratives. If viewers use the prosocial messages that these models portray to guide their everyday decisions, as is suggested by their identification and emotional ties to these characters, then important benefits can be gained from viewing DVDs.

The age of the participants yielded consistent positive relationships with perceptions of the main characters as role models as well as in their understanding of the program plot. Previous literature consistently documents age-related improvements in children's understanding of televised stories (e.g., Collins et al., 1978). While stage-like cognitive shifts in thought processes have not been documented between high school and college ages, it is likely that experiential differences in love may provide a basis for greater investment with the characters and better plot comprehension by the college students in this study. In particular, the high school participants, at an average age of 17.3 years, were just at the age when youth report being in love (age 17.5) and younger than the average age (18 years) when they report being in a serious relationship (see Regan et al., 2004). The older participants in the present sample, at an average of age 20.6 years, were beyond the time frame when those experiences typically occur. Future research should examine what kinds of prior experiential differences, including romantic ones, influence plot comprehension.

Not surprisingly, this story of love was better liked by females than by their male peers, a finding that is consistent with females' preferences for the romance genre (Huston et al., 1990). Consistent with previous research (Anderson & Cavallaro, 2000; Hoffner & Buchanan, 2005), our participants were also more likely to select same-sex characters as role models. However, males and females who felt empathy for either the female character Laurel or the male character Jack also identified with them. While these patterns are consistent with females' identification with opposite-sex characters, males generally do not identify with opposite-sex characters, in part because males generally have more power (see Huston, 1983). Males who viewed Laurel as a role model and who felt empathy for her also perceived her as being heroic, a quality that fits with traditional male values (Zehnder & Calvert, 2004). Thus, Laurel's heroic actions may have overridden her biological sex when males assessed her role model status.

Females were more likely to identify with the character Laurel when they perceived her as in control of her life, a finding that is consistent with self-efficacy theory (Bandura, 1997). In this movie, Laurel's control over her life may have been an important factor in helping her overcome the hardships she had to face, especially when compared with the traditional female role during the Civil War time period. Perhaps female participants saw this trait as a positive one because control helps people, possibly even media characters, weather the inevitable losses suffered in life (Bandura, 1997). Adolescents, who are in a period of transition in which they may not feel in control of their lives, may find self-efficacy to be a particularly important property of role model selections.

Empathy for characters and role model selections were associated with perceptions that the characters possessed positive interpersonal qualities and had few antisocial ones, qualities that have been reported elsewhere for role model

selections in the heroic genre (Calvert et al., 2004; Zehnder & Calvert, 2004). The qualities that elicited empathy from viewers as well as a desire to be like the character included compassion, thinking before acting, honesty, and morality, not antisocial qualities like evilness and vengefulness. The one exception was that all viewers who identified with Laurel perceived her to be aggressive. In this DVD Laurel was never physically aggressive, but she was assertive. Because female assertiveness is sometimes considered aggressive (see Huston, 1983), it may well be that the quality that viewers liked about the character was that she stood up for herself, a quality that also fits with females' appreciation for her control of her destiny.

While this study provides preliminary descriptive information about the role of fantasy empathy in role model selection of media characters and in youths' understanding of plot lines, it was a correlational study, which limited inferences about causal relationships. While fantasy empathy was a predictor of many dependent variables, a third variable, such as the association of fantasy empathy to higher intelligence (Davis, M.H., 1983), may account for the findings. In future research, the causal directions of links among empathic feelings, identification, and comprehension need to be examined in more detail. It would also be useful to examine younger age groups, particularly in relation to content made for them, to determine how early links among empathy, role model selection, feelings, and comprehension emerge. Finally, experiential differences that influence comprehension outcomes should be considered.

In conclusion, while the empathy literature has often focused on real events that happen to real people, the findings here suggest the power that fictional portrayals have over youth. This story and those like them portray universal experiences that many viewers grapple with, and the characters they view provide food for thought about how to cope with the everyday world in ways that can either elevate a person to act selflessly, heroically, and morally, or to act selfishly and destructively (Bettelheim, 1976). As such, the models on the screen provide potential lessons in the art of living (Voytilla, 1999) who can serve as important socialization agents in a world now dominated by symbolic media. At an applied level, the findings have implications for the kinds of films and DVDs that producers make for audiences of different ages and experiential backgrounds.

Acknowledgement

References

Allot, R. (1992). Evolutionary aspects of love and empathy. *Journal of Social and Evolutionary Systems*, *15*, 353−370.

Anderson, K., & Cavallaro, D. (2000, May). *From parents to pop stars: Role models and heroes in the third millennium.* Retrieved December 27, 2003, from http://www.mediascope.org/pubs/superher.pdf

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Englewood Cliffs, NY: Prentice Hall.

Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York: W.H. Freeman and Co.

Bettelheim, B. (1976). *The uses of enchantment: The meaning and importance of fairy tales.* New York: Alfred Knopf.

Calvert, S. L. (1999). *Children's journeys through the information age.* New York: McGraw Hill.

Calvert, S. L., Murray, K. J., & Conger, E. E. (2004). Heroic DVD portrayals: What American and Taiwanese adolescents admire and understand. *Journal of Applied Developmental Psychology*, *25*, 699−716.

Campbell, R., & Babrow, A. (2004). The role of empathy in responses to persuasive risk communication: Overcoming resistance to HIV prevention messages. *Health Communication*, *16*, 159−182.

Cantor, J. (2002). Fright reactions to mass media. In J. Bryant, & D. Zillmann (Eds.), *Media effects: Advances in theory and research* (pp. 287−306). Mahwah, NJ: Erlbaum.

Collins, W. A., Wellman, H. M., Keniston, A. H., & Westby, S. D. (1978). Age-related aspects of comprehension and inference from a televised dramatic narrative. *Child Development*, *49*, 389−399.

Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, *44*, 113−126.

Davis, N. Z. (1983). *The return of Martin Guerre.* Cambridge: Harvard University Press.

Davis, M. H. (1996). *Empathy: A social psychological approach.* Boulder, CO: Westview Press.

Davis, M. H., & Franzoi, S. L. (1991). Stability and change in adolescent self-consciousness and empathy. *Journal of Research in Personality*, *25*, 70−87.

Eisenberg, N. (1987). The relationship of empathy to prosocial and related behaviors. *Psychological Bulletin*, *101*, 91−119.

Hoffman, M. L. (2001). Toward a comprehensive empathy-based theory of prosocial moral development. In D. J. Stipek, & A. C. Bohart (Eds.), *Constructive and destructive behavior: Implications for family, school, and society* (pp. 61−86). Washington, DC: American Psychological Association.

Hoffner, C., & Buchanan, M. (2005). Youth adults' wishful identification with television characters: The role of perceived similarity and character attributes. *Media Psychology*, *7*, 325−351.

Huston, A. C. (1983). Sex-typing. In E. M. Hetherington (Ed.), *Handbook of child psychology: Vol. 4. Socialization, personality, and social development* (pp. 387−467). NY: John Wiley.

Huston, A. C., Wright, J. C., Rice, M. L., Kerkman, D., & St. Peters, M. (1990). The development of television viewing patterns in early childhood: A longitudinal investigation. *Developmental Psychology*, *26*, 409−420.

Jowett, G. S., Jarvie, I. C., & Fuller, K. H. (1996). *Children and the movies: Media influence and the Payne Fund controversy.* Cambridge, MA: Cambridge University Press.

Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics*, *33*, 159−174.

Regan, P. C., Durvasula, R., Howell, L., Ureno, O., & Rea, M. (2004). Gender, ethnicity, and the developmental timing of first sexual and romantic experiences. *Social Behavior and Personality*, *32*, 667−676.

U.S. Census Bureau (2000). *Race and ethnicity in people.* Retrieved July 19,2005, from http://factfinder.census.gov/servlet

Voytilla, S. (1999). *Myth and the movies: Discovering the mythic structure of 50 unforgettable films.* Studio City, CA: Michael Wiese Productions.

Zehnder, S. M., & Calvert, S. L. (2004). Between the hero and the shadow: Developmental differences in adolescents' perceptions and understanding of mythic themes in film. *Journal of Communication Inquiry*, *28*, 122−137.

Zillmann, D. (1982). Television viewing and arousal. In D. Pearl, L. Bouthilet, & J. Lazar (Eds.), *Television and behavior: Ten years of scientific progress and implications for the eighties* (pp. 53−67). Washington, DC: U.S. Government Printing Office.