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Heroic DVD portrayals: What US and Taiwanese adolescents admire and understand

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Abstract

Viewing media aggression can be a risk factor for the long-term well being of viewers, and heroes have been targeted as a major risk factor in this relationship because they commit justified acts of aggression. However, little is known about the specific aspects of heroic conduct that viewers find worthy of emulation. We examined US and Taiwanese adolescents' and college students' identification with, and perceptions of, heroic characters portrayed in a DVD narrative as well as their comprehension of the narrative. Those who thought that certain characters were heroes were more likely to identify with them. However, the qualities that viewers found attractive in heroes were compassion and thinking before using force, not aggression or vengeance. Those who did not understand the program well were more likely to identify with the villain, and they were also more likely to misattribute prosocial qualities to the villain. The results suggest that at least for older viewers, heroic behavior is admired and emulated for prosocial rather than antisocial conduct, and that poor plot-comprehension is one factor that contributes to younger viewers' identification with, and imitation of, antisocial role models.

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1. Introduction

When US citizens were attacked on their own soil on September 11, 2001, the safe haven of home was destroyed, replaced by fears, worries, and needs for feelings of security (Zehnder & Calvert, 2004).

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Heroes emerged to quiet our fears and to give us strength. Our heroes were the firefighters who saved, rescued, and even died in the Twin Towers of New York City. They were the passengers of United Airlines Flight 93 who died as they brought down their own plane to prevent the terrorists from killing innocent US citizens in heavily populated areas.

In spite of our admiration for these real people who died in order to save others, social scientists have generally concluded that exposure to media heroes has negative effects. In particular, research suggests that aggressive conduct by heroic characters may lead young children to adopt antisocial behaviors, such as aggression, which may continue into adulthood (Huesmann, Moise-Titus, Podolski & Eron, 2003). Moreover, imitation of antisocial conduct may be enhanced when children, particularly boys, identify with heroes and perceive the program as realistic (Huesmann et al., 2003).

But what specific qualities do youth admire in heroes? Is it their aggressive actions and justified acts of revenge, or is it the heroes' compassion, intelligence, sacrifice, and control over their own destiny? Our purpose here was to examine how male and female adolescents from the United States and Taiwan understand complex media portrayals about heroes. Because both cultures live with fears of external threats, be it from terrorists or mainland China, we expected both to feel threatened and hence likely to feel justified in pursuing revenge, particularly if they had actually been attacked as was the case for the US. We focus on emerging DVD technology since it is one main way that youth currently access media stories.

Our main hypotheses were twofold:

- (1) Prosocial, not antisocial, qualities of heroes would lead viewers to identify with the main characters.
- (2) Comprehension of the narrative would serve as an important moderator in adolescents' selection of both heroes and role models.

1.1. Mythic structure: The hero and the shadow

All cultures have heroes (Campbell, 1968). Based on myth, heroes represent the best we can be. Our heroes save us from danger, protect us from evil, even risk their own lives for justice. The intent of heroes is to be moral and just, not to be antisocial (Kotler & Calvert, 2003). Through the hero's journey, the person is transformed and reborn (Campbell & Moyers, 1991).

The countervailing force of the hero is the shadow, representing a life-giving but potentially destructive part of human nature (Kotler & Calvert, 2003). Threatening events bring forth the self-protective functions of the shadow (Jung, 1969a, 1969b). For instance, the loss of life on 9/11 or the fight for sovereignty by the Taiwanese against mainland China can activate the life-preserving functions of the shadow, leading to heroic self-protective actions. At extreme levels of threat, people justify their own antisocial behavior, externalize evil, and project dark forces only onto the enemy (Jung, 1969a, 1969b). Manifested as aggression and war, the "male" shadow, named such because it is more typical of males than of females, can become very destructive (Hall & Nordby, 1973).

Like Western culture, Chinese culture also endorses this dual quality of people. Confucian ethics formulates contrasts in which followers love good people and hate bad people (Li, 1997). Evil is characterized as a quality of bad people which can be overcome either by fighting boldly against evil or by avoiding it altogether (Li, 1997).

The true battle of good vs. evil, however, is not just an external, outward struggle against evil forces, but an internal struggle within oneself (Calvert, 1999). More specifically, part of the evolution of the

hero that is equally germane to the evolution of moral development is choosing a path of forgiveness and compassion over a darker path of anger, hatred, revenge, and retribution (Kotler & Calvert, 2003; Zehnder & Calvert, 2004).

This epic battle of good vs. evil has been captured from ancient Greek tales like the *Odyssey* to modern comic books and cartoons about Superman (Pecora, 1992; Zehnder & Calvert, 2004). Children are well-schooled in the cultural myths of heroes from early ages via television and film/DVD genres. The tales directed at young children take a decidedly one-sided perspective on who the brave hero is and who the evil villain is (Kotler & Calvert, 2003). In fact, adolescents treat villains as role models to avoid, rejecting their attitudes, values, and behaviors (Melnick & Jackson, 1998). What are the qualities that youth admire in their heroes and feel disdain for in villains?

1.2. Media role models

Media portrayals provide access to ample role models who display behaviors and qualities that youth can select and incorporate into their own personality structure, in part by acting on what they have seen through the processes of observational learning and imitation (Bandura, 1997). Since adolescence marks a turning point when key choices are made about the type of person one will become (Erikson, 1968), we targeted this age for our inquiries.

Because heroes engage in justified aggression and are rewarded for aggressive acts, media researchers have long been concerned that youth who identify with heroes will become more antisocial themselves (e.g., Wilson et al., 2002). However, heroes engage in instrumental aggression to obtain a goal rather than in hostile aggression that is intended to hurt or harm (Kotler & Calvert, 2003). Even so, young children do not understand intentions well (Collins, Wellman, Keniston & Westby, 1978), making them susceptible to the adverse effects of viewing aggressive content. Not surprisingly, male viewers who identify with heroes do become more aggressive; this aggressive conduct becomes a well-established part of the behavioral repertoire and is associated with antisocial behavior over long periods of time (Huesmann et al., 2003).

However, when asked about the qualities that make media heroes potential role models, aggressive conduct is not the reason that adolescents give. Instead, adolescents admire the prosocial qualities of heroes, even when the program contains violent content and a mixed message about the qualities of the hero's inherent goodness. *Xena the Warrior Princess*, for example, was a television series about a flawed hero who struggled with her own inner demons, or shadow. Nevertheless, college students who viewed episodes of *Xena* identified compassion and using your head before your sword as desirable qualities in female heroes (Calvert, Kondla, Ertel & Meisel, 2001). Similarly, *Batman*, a character who was haunted by his past and who struggled with his inner demons, was perceived by adolescents and college students to be heroic when he was compassionate and when he used restraint rather than vengeance in his interactions with villains (Zehnder & Calvert, 2004). Taken together, these findings suggest that aggression may not be the quality that youth are seeking when they view and select male or female heroic role models. US cultural ideals about heroes support prosocial qualities like compassion, thinking before acting aggressively, and control and restraint over one's aggressive impulses.

One's gender is another key organizer of identity. Youth create gender schemas, i.e., learned expectations that guide perception, memory, and inference (Fiske & Taylor, 1984), and they use these schemas to guide their attention selectively to media characters that are like them. Males typically identify with male characters, and females are more likely to identify with female characters, though

females will sometimes identify with males (Anderson & Cavallaro, 2000; Donnerstein & Smith, 2001; Huesmann et al., 2003). Given that real-life and symbolic media heroes are often males, males have more opportunities to identify with heroic qualities, including aggressive conduct (Calvert, 1999). Recent content changes, however, have added more nontraditional female characters to the roles of hero, making it more feasible for females to identify with same-sex heroes (Calvert et al., 2001).

Cultural background is yet another organizer of identity. Within Chinese culture, vengeance is an acceptable motive for aggression (Chen, 1995). One is expected to avenge the death of one's family member, or of one's master (Chen, 1995). Although vengeance is less acceptable in the United States, did the events of 9/11 lead US youth to favor vengeance as an appropriate act for heroes? Given that cultures now often share media portrayals, do people from varying cultures come to identify with and incorporate similar ideals into their beliefs about how heroic role models should act?

1.3. Comprehension of media stories

A final consideration in selecting role models may be how well viewers understand the content. With development, children come to understand the central-plot-relevant television content over the incidental irrelevant details (Collins et al., 1978). Central content is comprised of explicitly presented factual content as well as implicitly presented content in which the viewer infers character motivations, feelings, and links between cause-event sequences (Collins et al., 1978). Mature comprehension of television content emerges around ages 9–10 (Collins et al., 1978), but how children understand longer, more complex narratives, particularly those that mix good and evil messages, is not well understood.

The way children understand television programs with heroic themes may serve as a moderator for how they will subsequently act. For example, when Liss and her colleagues studied television superheroes, kindergartners chose to be more helpful than hurtful after viewing a presentation with only prosocial acts. However, second and fourth grade boys were most helpful after viewing a mixed heroic message that combined prosocial and aggressive acts. Moreover, the second and fourth grade boys who understood the program best were also the ones who chose the most prosocial and least aggressive options (Liss, Reinhardt & Fredriksen, 1983). When do youth understand the nuances of good and evil themes that are embedded in, and transmitted through, our cultural heritage, in part through our stories?

2. Hypotheses

In this study, we examined characteristics of adolescent viewers, such as age, gender, and cultural background, as well as their comprehension, in relation to their identification with media heroes. Our specific hypotheses were as follows:

2.1. Identification with the heroes

We expected participants to identify with the prosocial aspects of heroism (compassion, thinking before acting, control) rather than the antisocial aspects of heroism (instrumental aggression) or the darker sides of the villain (being evil, seeking revenge).

Our main gender-related hypothesis was that adolescent males and females would be more likely to identify with same-sex than opposite-sex characters. The one exception was for the villain, a female, because we expected male more so than the female participants to identify with characters who committed darker deeds because the male shadow is manifested in physical aggression, behaviors that are more typical of, and culturally acceptable for, males than females.

Our main culture-related hypothesis was that Taiwanese more so than US students would identify with the characters because the characters were Chinese.

2.2. *Comprehension*

We expected that older, college-aged participants would understand the program content, particularly the abstract implicit program content, better than younger, high school students would. More importantly, we expected comprehension to serve as a moderator of identification with the characters: specifically, we expected that students who better understood the content would identify with those characters who triumphed over their dark sides, and students who did not understand the content as well would identify more with the villain.

2.3. *Cultural ideals*

Because of the events of 9/11, we expected US more so than Chinese students to believe in the heroic ideals portrayed in the DVD as they might be more salient to them.

3. Method

3.1. *Participants*

Participants were 366 students from the United States ($n=175$) and Taiwan ($n=191$). There were 156 males and 210 females, divided into two age/schooling groups: high school (mean age=16 years, 4 months, $SD=10$ months) and college (mean age=20 years, 3 months, $SD=15$ months). Participants were recruited through personal contacts at universities and schools in the Washington, DC metropolitan area of the US and in Taiwan.

3.2. *Stimulus*

All participants viewed a 2-h DVD, *Crouching Tiger, Hidden Dragon*, in their native languages. The original DVD, which was shown to Taiwanese participants, was in the Mandarin dialect of the Chinese language. A dubbed English language version was shown to US participants. Otherwise, the presentation was identical. This picture won four Academy Awards, including Best Foreign Language Film in 2001 (Reuters, 2001).

The plot was about two ill-fated love stories and the characters' struggles for heroism and compassion over the dark sides of their natures. Shu Lien and Mu Bai, the older couple, are moving toward a commitment in what has been a long-standing relationship. Mu Bai gives up his sword, the Green Destiny, in pursuit of a happier life with Shu Lien.

The sword, however, is stolen by Jen, an aristocratic woman, who is in love with a rogue, Lo. Shu Lien, who knows that Jen is the thief, invites Jen and her mother for tea and subtly lets Jen know that she is aware of Jen's deed. Shu Lien only asks that the sword be returned to Sir Te, the new owner. In so doing, Shu Lien employs the heroic strategy of using her head rather than force to accomplish her aims. Jen initially returns the sword, but later steals it again when she is forced by her family and Chinese tradition to marry a man that she does not love. Jen flees and becomes a renegade warrior, pretending to be a man.

The story is further complicated when Mu Bai tries to take Jen on as his apprentice, bringing the destinies of all the characters into a tightly knit drama. He later discovers that Jade Fox, who killed his master, is Jen's governess and her teacher of martial arts. In the pursuit of vengeance for the death of his master, Mu Bai picks up the sword again. Jade Fox also discovers that Jen has betrayed her, reading and keeping the written secrets of the Wudon martial arts teachings from Jade Fox, who is illiterate. Jade Fox turns against Jen, captures her, imprisons her, and poisons her.

Mu Bai rescues Jen and kills Jade Fox, but in the process he is fatally wounded by a poison dart delivered by Jade Fox. Although Jen tries to prepare an antidote for the poison, she is too late. Mu Bai dies in Shu Lien's arms, professing his love to her with his last breath. Jen, who is changed by these events, offers her life to Shu Lien. Instead of killing the young woman, Shu Lien tells her to go and be true to herself. In this instance, Shu Lien chooses the heroic ideals of compassion and restraint rather than revenge. In the end, Jen leaps off a cliff where Lo, her lover, has wished for their return to the place and time when they were happy and in love, a wish that would come true according to a Chinese legend. The story ends as Jen floats through the clouds with her arms spread wide like a bird in flight.

The story delves into the struggles that all the characters have with their shadows, the dark sides of their personalities, and shows lessons of how some of them triumph over revenge. Shu Lien uses her head over force and chooses compassion rather than revenge; she uses force only as a last resort. Jen slips into the darker realms of her personality, only to feel remorse at the end; she tries but fails to save Mu Bai and leaps off of a cliff to what she hopes will be a return to a happier life. Mu Bai picks up the sword in revenge and kills Jade Fox, only to die himself as he rescues Jen and avenges the death of his master. Jade Fox feels betrayed by Jen and acts in vengeful ways throughout the story, only to die herself. Lo walks away from being a thief, hoping for the love of Jen, only to watch as she leaps from the top of the cliff.

3.3. Procedure

All students viewed the DVD in groups in the years 2002–2003. After viewing, they individually answered a questionnaire assessing their prior exposure to the film ("yes" or "no"), their affinity for the DVD content, their perceptions of and identification with the characters, their understanding of the plot, their understanding of the shadow, and their attitudes about heroism. US students answered an English version of the questionnaire whereas Taiwanese students answered a Chinese version of the questionnaire. The questionnaires of the Taiwanese respondents were then translated into English for scoring. Questions are presented in the order that participants answered them.

3.3.1. Prior exposure to the DVD/film

Participants were asked if they had ever viewed *Crouching Tiger, Hidden Dragon* before. Potential response options were "yes" or "no".

3.3.2. *Affinity for the film*

Using a five-point Likert scale, participants were asked to rate how much they liked the DVD, *Crouching Tiger, Hidden Dragon*. Response options were “not much”, “a little bit”, “somewhat”, “a lot”, or “a whole lot”.

3.3.3. *Perceptions of characters*

Using a five-point Likert scale, participants were asked the following questions for Shu Lien, Mu Bai, Jen, Lo, and Jade Fox, respectively: (1) how much do you want to be like this character?; (2) how much compassion does this character show?; (3) how much does this character think before acting?; (4) how much control does this character have?; (5) how aggressive is this character?; (6) how vengeful is this character?; (7) how heroic is this character?; and (8) how evil is this character?. For each question, response choices were “not much”, “a little bit”, “somewhat”, “a lot”, or “a whole lot”.

3.3.4. *Comprehension of content*

The comprehension measure consisted of 30 open-ended questions, 17 tapping into memory of the explicitly presented central content and 13 tapping into memory of the implicitly presented-central content. Following procedures developed by Collins (e.g., Collins et al., 1978), questions were created by having core project members develop a set of questions as they viewed the program. Then a group of nine judges rated the questions as central (plot-relevant) or incidental (irrelevant to the plot). Questions with a minimum centrality rating of 70% were retained. Incidental questions were dropped. Central questions were later rated as explicitly or implicitly presented content by having a scorer view the DVD and record the specific time where the answers to the explicitly presented questions occurred. If the answer was not explicitly presented, then it was coded as an implicit question that had to be inferred by the viewer.

Responses were scored on a three-point scale. Sample responses and scoring for an implicit question is as follows: “Why does Shu Lien tip Jen’s teacup over?”: (3 points) understands the answer, e.g., “To see if she was the one who stole the sword;” (2 points) partially understands the answer, e.g., “To see if she has the reflexes of a Wudan warrior;” and (1 point) did not understand the answer, e.g., “To test her reflexes.” Sample responses and scoring for an explicit question is as follows: “According to Lo, what makes wishes come true?”: (3 points) understands the answer, e.g., “A faithful heart;” (2 points) partially understand the answer, e.g., “True intent;” and (1 point) did not understand the answer, e.g., “Looking at the stars.”

Reliability was computed by having two independent scorers compare their ratings for 20% of the US and Taiwanese samples of high school and college student responses. Interobserver reliability (kappa) was .84 for the explicitly presented content and .70 for the implicitly presented content, which are in the excellent and good range, respectively.

3.3.5. *Shadow questions*

In the next section of the questionnaire, we examined how well participants understood the shadow. The following directions were provided. “The shadow is the life preserving, but potentially destructive part of the personality. The shadow saves us, for instance, when someone attacks us and we respond. It becomes destructive when we seek revenge and retribution, particularly after being betrayed. The dark side of the shadow is sometimes associated with evil forces.” Then participants were asked to discuss the struggles and resolutions that each major character, Shu Lien, Jen, Mu Bai, Lo, and Jade Fox, had with their shadow.

Sample responses and scoring for knowledge of Shu Lien's shadow, based on a three-point system, are as follows: (3 points) understands the shadow, e.g., "She wants to hurt Jen because of betrayal but cannot—that would be the easy way out for her. She overcomes the evil side of her shadow;" (2 points) partially understands the shadow, e.g., "I don't think hers is active; she controls it;" or (1 point) does not understand the shadow, e.g., "Not being open enough with Mu Bai. At least she knows that he loved her too—despite it being too late."

Reliability was computed by having two independent scorers compare their ratings for 20% of the US and Taiwanese samples of high school and college student responses. Kappa interobserver reliability was .90 for the shadow material, a rating which falls in the excellent range.

3.3.6. Heroic ideals

Finally, participants rated five statements on a five-point Likert scale ("not much", "a little bit", "somewhat", "a lot", or "a whole lot"). These statements were "In heroic tales, good always triumphs over evil." "Heroes are compassionate." "Heroes use their heads before their swords." "Heroes are in control of their destinies." "Heroes never fight for revenge."

4. Results

4.1. Perceptions of characters

To examine what made certain characters role models for youth, we examined the kinds of qualities that participants associated with role models and heroic status. We expected males to identify more with male characters and females to identify more with female characters. We also expected the Taiwanese more so than US participants to identify with program characters because the program was made in China and featured Chinese characters. Initially, we computed Pearson product moment correlations on overall perceptions of each character. To examine how much our participants identified with specific characters and how heroic they perceived them to be, we then conducted a 2 (Gender) \times 2 (Grade) \times 2 (Culture) multivariate analysis of variance, in turn, on identification and heroic scores. Scores could range from 1 (low) to 5 (high) for each character on each dependent variable. Prior exposure to the program was a covariate.

The Pearson product moment correlations revealed that similar attributes were perceived as heroic and as worthy of role model status for most characters. As seen in [Table 1](#), role model status was positively correlated with the perception of heroic qualities in characters, including the villain, for youth from both cultures. The qualities that made Shu Lien, Mu Bai, Jen, Lo, and even the villain, Jade Fox, a role model and a hero to participants generally included compassion, thinking before acting, not being evil, not being vengeful, and for some characters, being in control of one's life. Taiwanese students were averse to characters that they perceived as being vengeful; by contrast, US students perceived vengefulness negatively only for the villain. Aggression was often unrelated to perceptions of role model or heroic status, but when aggression was significant, it was in a negative direction for perceptions of the role model and heroic status of Jade Fox, the villain, and to a lesser extent, her prodigy Jen who was struggling between the axes of good and evil.

The multivariate analysis conducted on identification scores yielded main effects for gender, *Wilks Lambda* (5, 347) = 19.58, $p < .001$, and for culture, *Wilks Lambda* (5, 347) = 34.85, $p < .001$. The

Table 1

Pearson product moment correlations: perceptions of characters' role model status and heroic qualities as a function of prosocial and antisocial qualities and viewer comprehension for US and Taiwanese students

Character	Role model	Heroic	Compassion	Think before act	Control of destiny	Aggressive	Vengeful	Evil	Explicit comp	Implicit comp
<i>Shu Lien</i>										
Role	1	.36***	.23***	.23***	.21***	.06	.04	-.14**	.13**	.18***
Model	(365)	(364)	(365)	(363)	(363)	(365)	(364)	(364)	(365)	(365)
US	1	.27**	.16*	.13 ⁺	.15*	-.03	.04	.03	.05	.05
	(175)	(174)	(175)	(175)	(173)	(175)	(174)	(174)	(175)	(175)
Taiwan	1	.13 ⁺	.10	.05	.29**	.01	.04	.10	-.02	.09
	(190)	(190)	(190)	(188)	(190)	(190)	(190)	(190)	(190)	(190)
Heroic	.36***	1	.39***	.36***	.27***	.00	-.16**	-.35***	.28***	.24***
	(364)	(364)	(364)	(362)	(362)	(364)	(363)	(364)	(364)	(364)
US	.27**	1	.24**	.38**	.16*	-.12	-.12	-.27**	.22**	.23**
	(174)	(174)	(175)	(174)	(172)	(174)	(173)	(174)	(174)	(174)
Taiwan	.13 ⁺	1	.40**	.22**	.37**	-.02	-.23**	-.24**	.21**	.12
	(190)	(190)	(190)	(188)	(190)	(190)	(190)	(190)	(190)	(190)
<i>Mu Bai</i>										
Role	1	.37***	.13**	.26***	.06	-.09	-.05	-.21***	.18***	.21***
Model	(361)	(360)	(360)	(361)	(359)	(360)	(360)	(360)	(361)	(360)
US	1	.43**	.11	.22**	.10	-.10	-.06	-.12	.10	-.02
	(175)	(174)	(175)	(175)	(173)	(175)	(175)	(174)	(175)	(175)
Taiwan	1	.19*	.05	.08	.08	-.11	-.09	-.08	.11	.23
	(186)	(186)	(185)	(186)	(186)	(185)	(186)	(186)	(186)	(186)
Heroic	.37***	1	.26***	.44***	.17***	-.08	-.06	-.35***	.22***	.14***
	(360)	(364)	(363)	(364)	(362)	(363)	(363)	(364)	(364)	(364)
US	.43**	1	.19*	.34**	.10	-.01	.02	-.22**	.17*	.01
	(174)	(174)	(174)	(174)	(172)	(174)	(173)	(174)	(174)	(174)
Taiwan	.19*	1	.24**	.36**	.30**	-.14*	-.17*	-.26**	.15*	.07
	(186)	(190)	(189)	(190)	(190)	(189)	(190)	(190)	(190)	(190)
<i>Jen</i>										
Role	1	.33***	.27***	.16**	.10*	.01	-.02	-.22***	.02	.11*
Model	(365)	(364)	(363)	(363)	(365)	(365)	(364)	(364)	(365)	(365)
US	1	.42***	.32***	.18*	.08	-.01	.03	-.29**	-.06	.03
	(175)	(174)	(174)	(175)	(175)	(175)	(174)	(174)	(175)	(175)
Taiwan	1	.24**	.23**	.14*	.13 ⁺	.02	-.07	-.17*	.07	.17*
	(190)	(190)	(189)	(188)	(190)	(190)	(190)	(190)	(190)	(190)
Heroic	.33***	1	.34***	.36***	.11*	-.21***	-.16**	-.23***	.07	.07
	(364)	(364)	(362)	(362)	(364)	(364)	(363)	(364)	(364)	(364)
US	.42**	1	.40**	.32*	.22**	-.21**	-.02	-.29**	.01	.01
	(174)	(174)	(173)	(174)	(174)	(174)	(173)	(174)	(174)	(174)
Taiwan	.24*	1	.30**	.39**	.02	-.24**	-.28**	-.16*	.10	.11
	(190)	(190)	(189)	(188)	(190)	(190)	(190)	(190)	(190)	(190)

(continued on next page)

Table 1 (continued)

Character	Role model	Heroic	Compassion	Think before act	Control of destiny	Aggressive	Vengeful	Evil	Explicit comp	Implicit comp
<i>Lo</i>										
Role	1	.31***	.19***	.15**	.14**	-.01	-.04	-.06	.07	.04
Model	(365)	(364)	(365)	(365)	(364)	(365)	(364)	(363)	(365)	(365)
US	1	.33**	.21**	.24**	.11	.02	.04	-.18*	.06	-.04
	(175)	(174)	(175)	(175)	(174)	(175)	(174)	(174)	(175)	(175)
Taiwan	1	.31**	.24**	.13 ⁺	.15*	-.04	-.13 ⁺	-.05	.14	.18*
	(190)	(190)	(190)	(190)	(190)	(190)	(190)	(189)	(190)	(190)
Heroic	.31***	1	.24***	.25***	.15**	-.03	.00	-.04	.13**	.11*
	(364)	(364)	(364)	(364)	(363)	(364)	(363)	(363)	(364)	(364)
US	.33**	1	.10	.30**	0.18*	.09	.13	-.03	.02	-.03
	(174)	(175)	(174)	(174)	(173)	(174)	(173)	(174)	(174)	(174)
Taiwan	.31**	1	.35**	.21**	.13 ⁺	-.09	-.13 ⁺	-.04	.21**	.22**
	(190)	(190)	(190)	(190)	(190)	(190)	(190)	(189)	(190)	(190)
<i>Jade Fox</i>										
Role	1	.31***	.30***	.09	.08	-.15**	-.34***	-.24***	-.21***	-.07
Model	(364)	(364)	(364)	(364)	(363)	(364)	(364)	(363)	(364)	(364)
US	1	.27**	.10	-.05	-.10	-.04	-.40**	-.13	-.20**	.00
	(175)	(174)	(175)	(175)	(174)	(175)	(175)	(175)	(175)	(175)
Taiwan	1	.24**	.33**	.06	.06	-.11	-.28**	-.20**	-.16*	-.03
	(189)	(189)	(190)	(189)	(189)	(189)	(189)	(189)	(189)	(189)
Heroic	.30***	1	.36***	.14**	.11*	-.27***	-.27***	-.32***	-.17***	-.16***
	(363)	(364)	(364)	(364)	(363)	(364)	(364)	(364)	(364)	(364)
US	.27**	1	.42**	.19*	.02	-.17*	-.20**	-.32**	-.15 ⁺	-.17*
	(174)	(174)	(174)	(174)	(173)	(174)	(174)	(174)	(174)	(174)
Taiwan	.24**	1	.26**	-.01	.01	-.23**	-.24**	-.24**	-.11	-.07
	(190)	(190)	(190)	(190)	(190)	(190)	(190)	(190)	(190)	(190)

⁺ $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$. All tests are two-tailed.

covariate of prior exposure to the DVD was not significant. As expected, univariate contrasts revealed that participants identified with same-sex characters for Shu Lien, $F(1, 351) = 7.38, p < .01$ (female: $M = 2.86, SE = .07$ vs. male: $M = 2.55, SE = .09$), Mui Bai, $F(1, 351) = 27.18, p < .001$ (male: $M = 3.50, SE = .09$ vs. female: $M = 2.87, SE = .08$), and Lo, $F(1, 351) = 18.68, p < .001$ (male: $M = 2.97, SE = .10$ vs. female: $M = 2.39, SE = .09$). Although the mean identification scores were lower for the villain than for the other characters, males did identify with Jade Fox, the villain, more so than females did, $F(1, 351) = 4.03, p < .05$ ($M = 1.39, SE = .06$ vs. $M = 1.24, SE = .05$, respectively). There were no gender differences in participants' identification with Jen (female: $M = 2.53, SE = .10$ vs. male: $M = 2.63, SE = .08$).

Univariate contrasts conducted for cultural differences revealed that US more so than Taiwanese students identified with Shu Lien $F(1, 351) = 99.85, p < .001$ ($M = 3.29, SE = .09$ vs. $M = 2.11, SE = .08$, respectively), and Mu Bai $F(1, 351) = 85.93, p < .001$ ($M = 3.76, SE = .09$ vs. $M = 2.61, SE = .08$, respectively) whereas Taiwanese more so than US students identified with Lo $F(1, 351) = 4.64, p < .05$ ($M = 2.83, SE = .09$ vs. $M = 2.53, SE = .10$, respectively) and Jade Fox, $F(1, 351) = 14.00, p < .001$ ($M = 1.46, SE = .05$ vs. $M = 1.17, SE = .06$, respectively). There were no significant differences in their identification with Jen (US: $M = 2.66, SE = .10$ vs. Taiwanese: $M = 2.50, SE = .09$).

The multivariate analysis conducted on heroic scores yielded main effects for grade, *Wilks Lambda* (5, 351) = 2.95, $p = .01$, and for culture, *Wilks Lambda* (5, 351) = 20.66, $p < .001$. Univariate contrasts revealed that high school students perceived Jen as being more heroic than college students did, $F(1, 355) = 5.14$, $p < .05$ ($M = 2.74$, $SE = .09$ vs. $M = 2.46$, $SE = .08$, respectively). Univariate contrasts revealed that US students were more likely than Taiwanese students to perceive Shu Lien, $F(1, 355) = 60.40$, $p < .001$ ($M = 4.33$, $SE = .08$ vs. $M = 3.50$, $SE = .07$, respectively), and Mu Bai, $F(1, 355) = 66.89$, $p < .001$ ($M = 4.65$, $SE = .08$ vs. $M = 3.81$, $SE = .07$, respectively) as heroic. By contrast, Taiwanese students were more likely than US students to perceive Jade Fox as heroic, $F(1, 355) = 23.84$, $p < .001$, ($M = 1.69$, $SE = .06$ vs. $M = 1.25$, $SE = .07$, respectively). There were no significant cultural differences in perceptions of Jen (US: $M = 2.70$, $SE = .09$ vs. Taiwanese: $M = 2.50$, $SE = .09$) or Lo (US: $M = 2.92$, $SE = .09$ vs. Taiwanese: $M = 2.77$, $SE = .08$) as heroic.

4.2. Heroic ideals

Heroic ideal scores were analyzed, in turn, in a 2 (Culture: US vs. Taiwan) \times 2 (Grade: high school vs. college) \times 2 (Gender: male vs. female) multivariate analysis of covariance design with prior viewing of the program as a covariate. Scores could range from 1 to 5.

The analysis yielded a main effect of culture, *Wilks Lambda* (5, 352) = 8.68, $p < .001$. The covariate of prior exposure to this film was not significant.

Univariate contrasts were then conducted to examine where the specific cultural differences were in heroic ideals. As seen in Table 2, US students were more likely than Taiwanese students to believe that heroes are in control of their lives, $F(1, 356) = 15.35$, $p < .01$, to believe that the head should be used before the sword, $F(1, 356) = 27.82$, $p < .001$, to believe in heroic compassion, $F(1, 356) = 14.56$, $p < .001$, and to believe that good always triumphs over evil, $F(1, 356) = 11.81$, $p < .001$. There were no significant differences in cultural ideals about whether heroes should seek revenge or not.

4.3. Knowledge of the dark side of human nature: The shadow

Because of the aggressive, warlike nature of the male shadow, we expected males to understand the dark side of human nature more so than females. We also expected prior viewing of the DVD to be associated with a greater understanding of the shadow because those who choose to go to this kind of movie genre are exposed to this kind of plot structure more often. The possible range of scores was 1–3.

A 2 (Gender) \times 2 (Grade) \times 2 (Culture) multivariate analysis of covariance was computed on participants' understanding of Shu Lien's, Mu Bai's, Jen's, Lo's, and Jade Fox's shadows. The analysis

Table 2
Mean (*SE*) cross-cultural differences in US and Taiwanese students' heroic ideals

Heroic qualities	US	Taiwanese
Heroic compassion	3.76*** (.08)	3.36 (.07)
Think before act	3.74*** (.08)	3.15 (.07)
Control of destiny	3.09** (.09)	2.59 (.08)
Not seekers of revenge	2.50 (.09)	2.40 (.08)
Good triumphs over evil	3.57*** (.10)	3.09 (.09)

** $p < .01$. *** $p < .002$. Covariates appearing in the model are evaluated at the following values: Prior Exposure = .56.

yielded significant effects for culture, *Wilks Lambda* (5, 353) = 5.95, $p < .001$, and grade, *Wilks Lambda* (5, 353) = 2.68, $p = .02$. As expected, the covariate of prior exposure was also significant, *Wilks Lambda* (5, 353) = 2.64, $p = .02$.

Univariate contrasts were then conducted to examine where the specific cultural and grade differences were in understanding the struggles of the characters with their dark side. US students were more likely than Taiwanese students to understand the characters' struggles with their shadows: Shu Lien, $F(1, 357) = 16.60$, $p < .001$ ($M = 1.29$, $SE = .04$ vs. $M = 1.05$, $SE = .04$, respectively), Jen, $F(1, 357) = 15.16$, $p < .001$ ($M = 1.14$, $SE = .02$ vs. $M = 1.02$, $SE = .02$, respectively), Lo, $F(1, 357) = 5.55$, $p < .02$ ($M = 1.05$, $SE = .02$ vs. $M = 1.00$, $SE = .01$, respectively), and Jade Fox, $F(1, 357) = 10.06$, $p = .002$ ($M = 1.61$, $SE = .05$ vs. $M = 1.41$, $SE = .04$, respectively). There were no cultural differences in participants' understanding of Mu Bai's struggle with his shadow (US: $M = 1.70$, $SE = .07$ vs. Taiwanese: $M = 1.73$, $SE = .06$). College students were also more likely to understand Jade Fox's struggle with her shadow than high school students, ($M = 1.61$, $SE = .04$ vs. $M = 1.41$, $SE = .05$, respectively). However, the mean level of understanding the characters' struggles with their shadows was low.

4.4. Affinity for the DVD content

A 2 (Culture) \times 2 (Gender) \times 2 (Grade) ANCOVA was computed on how much participants liked the DVD content using prior exposure to the content as a covariate. The three-factor ANCOVA yielded a main effect of culture, $F(1, 356) = 10.50$, $p = .001$, which was qualified by a culture \times grade interaction $F(1, 356) = 5.06$, $p = .025$. Contrary to prediction, US students liked the DVD content more so than the Taiwanese students ($M = 3.78$, $SE = .07$ vs. $M = 3.46$, $SE = .07$). Taiwanese high school students ($M = 3.29$, $SE = .10$) liked the DVD significantly less than Taiwanese college students ($M = 3.63$, $SE = .09$), US high school students ($M = 3.83$, $SE = .11$), or US college students ($M = 3.73$, $SE = .10$). As expected, those who had seen the film previously liked the DVD more, $F(1, 356) = 8.50$, $p < .01$.

4.5. Comprehension of content

Answers to explicit and implicit questions were summed for each respective dependent variable. For explicit questions ($n = 17$; possible range = 17–51), scores actually ranged from 21 to 51, $M = 41.84$, $SD = 5.76$. For implicit questions ($n = 13$; possible range = 13–39), scores actually ranged from 14 to 37, $M = 28.52$, $SD = 3.79$. Explicit and implicit scores were analyzed, in turn, in a 2 (Culture: US vs. Taiwan) \times 2 (Grade: high school vs. college) \times 2 (Gender: male vs. female) analysis of covariance design with prior viewing of the program as a covariate.

4.5.1. Explicitly presented content

The three-factor ANCOVA computed on comprehension of the explicitly presented central content yielded main effects of grade, $F(1, 357) = 22.55$, $p < .001$, and culture, $F(1, 357) = 17.38$, $p < .001$. US students understood the explicitly presented program content significantly better than Taiwanese students ($M = 42.93$, $SE = .44$ vs. $M = 40.39$, $SE = .40$, respectively). Not surprisingly, college students understood the program content significantly better than high school students ($M = 43.07$, $SE = .40$ vs. $M = 40.24$, $SE = .44$, respectively). The covariate of prior viewing was also significant, with those who had viewed the film/DVD previously demonstrating better comprehension of the explicitly presented content than those who had not seen it, $F(1, 357) = 19.10$, $p < .001$.

4.5.2. Implicitly presented content

The two-factor ANCOVA computed on comprehension of the implicitly presented central content yielded main effects of grade, $F(1, 357) = 22.35, p < .001$, and culture, $F(1, 357) = 20.32, p < .001$, which were qualified by a gender \times culture, $F(1, 357) = 4.69, p = .03$, and a gender \times grade interaction, $F(1, 357) = 5.18, p = .02$. US students understood the implicit program content significantly better than Taiwanese students ($M = 29.18, SE = .29$ vs. $M = 27.40, SE = .26$, respectively). The culture \times gender interaction revealed that this difference was mainly due to the US females' ($M = 29.90, SE = .34$) superior understanding of implicitly presented content when compared to US males ($M = 28.46, SE = .46$), Taiwanese females ($M = 27.30, SE = .37$), or Taiwanese males ($M = 27.50, SE = .36$).

Not surprisingly, college students understood the implicit program content significantly better than high school students ($M = 29.20, SE = .26$ vs. $M = 27.38, SE = .28$, respectively). The gender \times grade interaction revealed that college females ($M = 29.95, SE = .31$) understood the implicitly presented content better than the college male ($M = 28.46, SE = .41$), high school female ($M = 27.25, SE = .39$), or high school male students ($M = 27.50, SE = .41$). The covariate of prior viewing was significant with those who had viewed the DVD previously demonstrating better comprehension of the implicit content than those who had not seen the DVD before, $F(1, 357) = 13.77, p < .001$.

4.5.3. Summary

Overall, the analyses indicated that US culture, college level status, and prior viewing were related to better comprehension of the explicit and implicit content. US females, particularly at the college level, understood the abstract implicit program content best.

4.6. The relation between comprehension and perceived qualities of role models

We expected comprehension to moderate how students perceived role models and heroes. Using Pearson product moment correlations, we found that those who understood the implicit content better wanted to be like Shu Lien and Mu Bai as well as Jen and Lo for the Taiwanese students. Those who understood the explicit program content well wanted to be like Shu Lien and Mui Bai. Those who understood the explicit content poorly wanted to be like the villain, Jade Fox. Put another way, those with poorer comprehension were more likely to identify with the villain, and those with better comprehension were more likely to identify with the heroes, as we had predicted. For heroism, those who understood the explicit or implicit content better thought that Shu Lien, Mu Bai, and Lo were

Table 3
Bivariate correlations among viewer characteristics and identification with villain

	2	3	4	5	N
(1) Identification with villain	-.17**	-.16**	.23**	-.07	364
(2) Comprehension of narrative		.10	-.25**	.26**	366
(3) Gender			-.17**	.14**	366
(4) Cultural background				-.10	366
(5) Grade					

** $p < .01$ (two-tailed).

Note: Grade (high school = 1; college = 2); Gender (male = 1; female = 2); Cultural background (US = 1; Taiwan = 2); Total comprehension (explicit + implicit scores).

Table 4
Summary of linear regression analysis predicting identification with the villain

Predictors	<i>B</i>	<i>SE</i>	Beta	<i>t</i>	Significance
Grade	−.01	.07	−.01	−.13	.894
Gender	−.16	.07	−.11	−2.21	.028
Cultural background	.26	.07	.19	3.54	.000
Total comprehension	−.01	.01	−.11	−2.08	.038

R^2 total = .08; $F(4, 359) = 7.98, p < .001$.

Note: Grade (high school = 1; college = 2); Gender (male = 1; female = 2); Cultural background (US = 1; Taiwan = 2); Total comprehension (explicit+implicit scores).

heroic. By contrast, those who understood the explicit or implicit content poorly, particularly the US students, thought that Jade Fox was heroic. See Table 1.

We then conducted a regression analysis to examine the role that comprehension plays in identification with the villain using participants' gender, cultural background, age, and their comprehension of all content, both explicit and implicit, as predictors of identification. As expected, males and those who did not understand the program well were more likely to identify with the villain. In addition, US students were less likely to identify with the villain than the Taiwanese students were. Grade was not a significant predictor. The zero-order correlations and the regression analyses are presented in Tables 3 and 4, respectively.

5. Discussion

The purpose of this study was to examine cross-cultural similarities and differences in US and Taiwanese perceptions and understandings of heroic Chinese film/DVD portrayals. We were especially interested in qualities of characters that led adolescents to identify with them as well as the role of comprehension in this process.

As expected, both US and Taiwanese high school and college students identified with characters for their prosocial, not their antisocial, qualities. In particular, adolescents perceived heroes as being more compassionate, as using their heads before their swords, and as being in control of their lives; they did not perceive heroes as being evil or as seekers of revenge. Aggression was generally unrelated to perceptions of heroic status, and when it was, the relationship was negative. The characters that were perceived as heroes were also perceived as role models. Taken together, the results support prior research that youth do indeed view heroes as role models (Huesmann et al., 2003; Wilson et al., 2002), but that the viewer focuses in on desirable prosocial rather than antisocial qualities of the hero (Calvert et al., 2001; Zehnder & Calvert, 2004).

A second major area of interest was the role of comprehension in viewers' selection of heroes. Previously, Liss et al. (1983) found that kindergartners who viewed a simple good/evil televised portrayal subsequently chose more hurtful than helpful responses, but that 2nd and 4th grade boys chose more helpful than hurtful responses. More importantly, those older boys who chose the helpful responses more often understood the narrative better. We found similar moderating effects of comprehension here as well, even at much older ages. In particular, those who understood the narrative well identified with the heroic characters, Shu Lien and Mu Bai, whereas those who understood the narrative poorly

identified with the villain, Jade Fox. These findings suggest the importance of a mature understanding of narratives by those who view them, a serious policy issue when one considers the number of youth who attend action-adventure movies at theaters or who view them as DVD, videotape, and eventual television fare in their homes.

As found in previous research (Anderson & Cavallaro, 2000; Huesmann et al., 2003), females identified more with female characters and males identified with male characters, except for the villain, Jade Fox, with whom males were more likely to identify. Males' identification with a villain may occur because gender roles dampen the potential for females to act in physically destructive and antisocial ways (Ruble & Martin, 1998). Alternately, the poorer comprehension of the narrative by males than by US females may have led the males to find the villain more attractive as a role model because they did not really understand the story that was unfolding.

Contrary to prediction, Taiwanese students did not always identify with the Chinese characters more than US students did. Rather, the Taiwanese students identified with the more rebellious young character Lo and the villain Jade Fox while the US students identified more with the older heroic characters, Shu Lien and Mu Bai. In Shu Lien and Mu Bai, the ideals of compassion and thinking before using force were personified, a belief structure that US student adhered to in their selections of qualities of heroes. Moreover, the US students understood the struggles that characters had with their shadows better than Taiwanese students. The characters had individual quests to overcome their own dark sides to take the higher moral ground. This is a struggle that US youth probably faced after the 9/11 attack. Taken together, the results suggest that when adolescent viewers look for characters that are like them, they go beyond group characteristics of gender, ethnicity, or national origin and look for perceived similarities of belief.

The dark side, or shadow, of Mu Bai was the only instance where Taiwanese students understood the internal struggles of good and evil as well as the US students did, suggesting that Taiwanese students did understand this quest within their own cultural values. However, the Taiwanese students rejected vengeance in their role models and heroes, even though their own culture historically expected it (Cheng, 1995). Nonetheless, the US students were less likely to choose the villain for a hero than were the Taiwanese students, suggesting that US students tend to avoid any affiliation with a person whose actions can be perceived as vengeful (Melnick & Jackson, 1998).

We believe that the template developed about heroes and villains by youth are a complex weaving of cultural influences, both real and embedded in cultural stories presented via media. Most cultures cultivate and reinforce heroic templates through their stories and teachings (Campbell, 1968). US students view a heavy dose of heroic films that convey particular beliefs about heroes, beliefs that are reinforced and cultivated by literature and traditions of our society. Many Western films, such as *Batman Forever*, have the hero walk away from killing for revenge. Others show the moral downfall of a character who follows the path of revenge, as in *Star Wars* where the innocent child Anakin Skywalker will become the evil Darth Vader.

In the United States, the tragic real events of 9/11 shaped an entire nation's view of good and evil. Since 9/11, revenge has been presented as the hand of justice in the US (Zehnder & Calvert, 2004). The more complex moral struggles that involve restraint and choices to walk away from revenge have been less likely to be portrayed in our real fight against terrorism. Instead, US rhetoric presented good and evil as polar opposites, invoking fear and moral principles as a justification for aggressive actions (Coe, Domke, Graham, John & Pickard, 2004). This interpretation is supported by US students' perceptions that only the villain was vengeful, suggesting the internalization of bipolar concepts of good and evil. Our sample of US students lived in the Washington, DC metropolitan area, one of the targets of the 9/11

attack, which probably amplified this perception of the evil villain and enhanced fears and perceived needs for protection.

Justified aggression is an issue not just because of media portrayals (Huesmann et al., 2003; Wilson et al., 2002), but because of deeply entrenched cultural beliefs about an “eye for an eye” that become more pronounced when one’s nation is attacked (Zehnder & Calvert, 2004). Not surprisingly, the potential for attack, as in the case of Taiwan by China, appears to be overshadowed by real attacks, such as the attacks made by terrorists on the US mainland. As Jung (1969a, 1969b) suggested, the shadow does come forth to protect us whenever we are attacked.

One of the limitations of this study was that we examined adolescents who are capable of understanding complex media messages. Younger children who are often exposed to this kind of film/DVD may have even more problems understanding the messages. An area of particular promise for improving comprehension is repeated exposure to the content (Nathanson, Jellinke & Cantor, 1997). Many messages that may be missed with a single viewing may improve with repeated exposure, even for infants (Barr, Chavez, Fujimoto, Muentener & Strait, 2002), and this was the case here with any prior exposure by the adolescent age group. Many US homes have DVD players or VCRs which allow for repeated viewing, and popular DVDs and tapes, which may have the greatest effect on children, are often viewed repeatedly. If comprehension improves with repeated viewings, and youth clearly perceive the villain as evil (Melnick & Jackson, 1998), then the antisocial effects of media may be diminished. However, if cultural beliefs about revenge as justified aggression are repeatedly reinforced, then antisocial effects will be enhanced. Indeed, we found that those who had seen the film before liked the film more, suggesting enhanced effects for repeated viewers.

At a policy level, the literature in both psychology and communications emphasizes the deleterious effects of exposure to media heroes and recommend a decrease in exposure to media violence. We agree that there are many documented negative outcomes from exposure to media violence (e.g., Huesmann et al., 2003). However, our data suggest a need to expand our perspective on how we view heroes and villains.

Those who create media stories are writers. They come from a tradition of the arts. They understand literature, and they write compelling stories about how we struggle with ourselves and with the challenges of life, including feelings of hatred, betrayal, and desires for revenge. Jung (1969a, 1969b), one of the great masters of symbols and myths, understood the importance of concepts like the hero and the shadow, and these concepts are repeatedly used in Hollywood scripts (Voytilla, 1999). Yet communication scholars and social scientists virtually ignore Jung’s perspective in their studies (Kotler & Calvert, 2003). We believe this is a serious omission in terms of science, and in terms of finding solutions to the problems of youth exposure to media violence. The hero’s quest can elevate people, challenging them to go beyond our own mortality (Campbell & Moyers, 1991) rather than inevitably lead to their moral downfall.

In conclusion, our study found that media heroes serve as role models for US and Taiwanese youth. However, the prosocial, not the antisocial qualities, of media characters were the main attributes that made these heroic portrayals worthy of emulation by adolescent viewers. Moreover, their comprehension of the story narrative was an important moderator of how messages were interpreted, thereby influencing if the viewer chose a hero or a villain as a potential role model. Heroic narratives are embedded in cultures throughout the world. How narratives present, modify, and use this formula is integral to the socialization of our youth, to the character of our nation, and to our views about the potential for good and evil in other people as well as in the moral struggles we face within ourselves.

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References

- Anderson, K., & Cavallaro, D. (2000). From parents to pop stars: Role models and heroes in the third millennium. Retrieved December 27, 2003, <http://www.mediascope.org/pubs/superher.pdf>
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman and Co.
- Barr, R., Chavez, V., Fujimoto, M., Muentener, P., & Strait, C. (2002, April). *Repeated exposure and cartoon sound effects enhance on infant imitation from television*. Poster presented at the Society of Research on Child Development. Tampa, FL.
- Calvert, S. L. (1999). *Children's journeys through the information age*. Boston: McGraw Hill.
- Calvert, S. L., Kondla, T., Ertel, K., & Meisel, D. (2001). Young adults' perceptions and memories of a televised woman hero. *Sex Roles, 45*, 31–52.
- Campbell, J. (1968). *The hero with a thousand faces*. Princeton, NJ: Princeton University Press.
- Campbell, J., & Moyers, B. (1991). *The power of myth*. New York: Anchor Books.
- Chen, P. (1995). Qian gu wen ren xia ke meng: wu xia xiao shuo lei xing yan jiu [The literati's chivalric dreams: Narrative models of Chinese knight-errant Literature]. Taipei: Rye Field.
- Coe, K., Domke, D., Graham, E. S., John, S. L., & Pickard, V. W. (2004). No shades of gray: The binary discourse of George W. Bush and an echoing press. *Journal of Communication, 54*, 234–252.
- Collins, W. A., Wellman, H., Keniston, A., & Westby, S. (1978). Age-related aspects of comprehension and inference from a televised dramatic narrative. *Child Development, 49*, 389–399.
- Donnerstein, E., & Smith, S. (2001). Sex in the media. In D. Singer & J. Singer (Eds.), *Handbook of children and the media* (pp. 289–307). Thousand Oaks, CA: Sage.
- Erikson, E. (1968). *Identity: Youth and crisis*. New York: Norton.
- Fiske, S. T., & Taylor, S. E. (1984). *Social cognition*. Reading, MA: Addison-Wesley.
- Hall, S., & Nordby, V. (1973). *A primer of Jungian psychology*. New York: Mentor Books.
- Huesmann, L. R., Moise-Titus, J., Podolski, C. L., & Eron, L. D. (2003). Longitudinal relations between children's exposure to TV violence and their aggressive and violent behavior in young adulthood: 1977–1992. *Developmental Psychology, 39*, 201–221.
- Jung, C. (1969a). *Aion: Researches into the phenomenology of the self*. In G. Adler, & R.F.C. Hull (Eds. & Trans), *The collected works of C.G. Jung* (2nd ed., Vol. 9(2)). Princeton, NJ: Princeton University Press (Original work published 1953).
- Jung, C. (1969b). *The archetypes and the collective unconscious*. In G. Adler, & R.F.C. Hull (Eds. & Trans), *The collected works of C.G. Jung* (2nd ed., Vol. 9(1)). Princeton, NJ: Princeton University Press (Original work published 1953).
- Kotler, J. A., & Calvert, S. L. (2003). Children's and adolescents' exposure to different kinds of media violence: Recurring choices and recurring themes. In D. Gentile (Ed.), *Media violence and children* (pp. 241–261). Westport, CT: Praeger.
- Li, Y. (1997). *The structure of the Chinese ethical archetype*. Frankfurt: Peter Lang.
- Liss, M., Reinhardt, L., & Fredriksen, S. (1983). TV heroes: The impact of rhetoric and deed. *Journal of Applied Developmental Psychology, 4*, 175–187.
- Melnick, M. J., & Jackson, S. J. (1998). The villain as reference idol: Selection frequencies and salient attributes among New Zealand teenagers. *Adolescence, 33*, 543–554.
- Nathanson, A. I., Jellinke, A., & Cantor, J. (1997, May). *Can Captain Planet save the world? Effects of a televised cartoon with an environmental message*. Paper presented at the International Communication Association, Montreal, Canada.
- Pecora, N. (1992). Superman/Superboys/Supermen: The comic book hero as socializing agent. In S. Craig (Ed.), *Research on Men and Masculinities: Men, Masculinity, and the media, Vol. 1*, pp. 61–77. Newbury, CA: Sage.
- Reuters. (2001, March 27). *Crouching Tiger, Hidden Dragon wins 4 Oscars*. *The Financial Express*. Retrieved December 27, 2003, <http://indianexpress.com/fe/daily/20010327/fec27100.html>

- Ruble, D., & Martin, C. (1998). Gender development. In W. Damon (Series Ed.) & N. Eisenberg (Volume Ed.), *Handbook of child psychology: Vol. 3. Social, emotional and personality development* (5th edition, pp. 933–1016). New York: John Wiley.
- Voytilla, S. (1999). *Myth and the movies: Discovering the mythic structure of 50 unforgettable films*. Studio City, CA: Michael Wiese Productions.
- Wilson, B.J., Smith, S.L., Potter, W.J., Kunkel, D., Linz, D., Colvin, C., & Donnerstein, E. (2002). Violence in children's television programming: Assessing the risks. *Journal of Communication*, 52, 5–35.
- 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.