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### Acculturation of Asian Indian Sojourners in America: Application of the Cultivation Framework

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# Acculturation of Asian Indian Sojourners in America: Application of the Cultivation Framework

Priya Raman & Jake Harwood

*This study examined the influence of watching American television on the acculturation levels of Asian Indian sojourners utilizing tenets of cultivation theory. Consumption of Indian print media and Indian movies most strongly and inversely predicted acculturation levels, but American media including television did not predict acculturation. The study also examined theoretically important moderators of media's acculturation effects such as perceived reality of television, filial attachment, intimacy of relationships with Americans and Indians, and acculturation needs. Despite an absence of significant moderator effects, the majority of the proposed moderator variables were associated with acculturation levels in theoretically predictable fashion.*

Acculturation is the process of changing one's values, attitudes, and behaviors as a result of intercultural contact (Berry, 2001). Scholars studying the acculturation of immigrants and sojourners into a host society have highlighted the importance of host mass media in the acculturation process (e.g., Khan, 1992; Kim, 1988). Recent research conducted on sojourners in American society has found that American television use and consumption are linked to acculturation needs as well as beliefs about American social reality (e.g., Woo & Dominick, 2003; Yang, Wu, Zhu, & Southwell, 2004). These findings suggest that host media may "cultivate" the ideologies or values of the host culture in sojourners and play an important role in the acculturation process. Thus, work on cultivation effects and research on acculturation appear

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to offer complementary perspectives on the effects of host mass media, specifically television programming, on sojourners and immigrants.

Accordingly, this study gauged the impact of exposure to American media on the acculturation levels of a sample of Asian Indian students. In line with work examining moderators of cultivation effects (e.g., Gerbner, Gross, Morgan, & Signorielli, 1980; Shrum, 2001; Shrum & Bischak, 2001), this study also examined questions of whether perceived reality of television, filial attachment, intimacy of host and ethnic relationships, and need for acculturation moderate the relationship between viewing of American television and acculturation levels.

### *Cultivation Theory*

Gerbner, Gross, Morgan, Signorielli, and Shanahan (2002) stated, "Television is a centralized system of storytelling" (p. 44). Television is a ubiquitous socializing agent and contains narrative themes of storytelling that are consistent across different genres of programming; however, television does not always reflect reality with accuracy (Gerbner et al., 2002). Cultivation theorists propose that high television viewing leads to an inability to distinguish between "objective reality" and "television reality." Specifically, compared to light viewers of television, heavy viewers are predicted to give "television" answers to questions pertaining to social reality and thus are said to be "cultivated." Cultivation theory has received empirical support across a wide variety of topics, though not without some controversy, and most cultivation studies have demonstrated small effect sizes (overall  $r = .09$ ; see meta-analysis by Morgan & Shanahan, 1997).

The earliest, and to date most frequently used, dependent variable in cultivation studies is a person's belief in a mean and violent world (e.g., Gerbner et al., 1980). Cultivation studies later branched into many other domains of research where dependent variables such as political orientation, idealistic marriage expectations, and sexism were examined (Roberts & Bachen, 1981; Segrin & Nabi, 2002; Signorielli, 1989). Cultivation effects are generally divided into two sets (Shrum, 1995). First-order cultivation judgments are estimates regarding the prevalence of certain artifacts in the everyday world (e.g., estimates of the number of people working in law enforcement, number of crimes/criminal acts, etc.). Second-order judgments are those that reflect more specific attitudes and beliefs, such as political orientations.

Two additional hypotheses proposed by Gerbner and colleagues (1980) are those of mainstreaming and resonance. Television is said to have a mainstreaming effect on heavy viewers, such that other variables (e.g., education) have *less* influence on their beliefs than with light viewers. Further, resonance is understood to have occurred when viewers' real-world experiences are congruent with what they see on television. In such a situation, cultivation effects are likely to be enhanced. As will be elaborated below, the cultivation perspective provides a way to understand how consumption of host mass media may influence acculturation patterns.

While cultivation theory has typically examined effects of viewing television, we stress the importance of examining relationships between acculturation and

consumption of other media. Such media may be as important as television, particularly given the global reach of new media such as the Internet. Therefore we examine each of the following as predictors of acculturation apart from television viewing, namely (a) movies, (b) magazines, (c) newspapers, and (d) the Internet. Although we stressed on the importance of measuring American media consumption as related to the acculturation process, we also examined the consumption of Indian-based media in our sample. The rationale for this inclusion is elaborated in the following sections.

### *Acculturation*

Acculturation is the change in culture(s) when people from different cultures come into contact (Herskovits, 1938; Redfield, Linton, & Herskovits, 1936). Typically, such change is manifested in a nondominant group; however, mutual change is possible (Berry, 2001). Acculturation studies typically concentrate on individuals who are involved in long-term contact (e.g., immigrants or individuals on lengthy sojourns). Popular related topics researching the effects of cross-cultural contact on individuals include examinations of acculturative stress, culture shock, adjustment and adaptation difficulties, and linguistic problems (e.g., Thomas, 1995; Yeh & Inose, 2003). Other scholars such as Berry (2001) study the give-and-take stressors operating on individuals as they find a balance between maintaining their cultural heritage and “fitting in” with the new culture.

This tussle between maintaining ethnic and host values is often influenced by images and information gleaned from host mass media, and this plethora of information may help inform sojourners and immigrants about the values and norms of the host culture. Kim (1988, 2001), for example, noted that host media help teach about the host culture, while avoiding the uncertainty and anxiety of interpersonal communication in the early phases of adaptation. Host mass media provide sojourners with a variety of cultural elements and cues that aid in their comprehension of the new culture’s history, values, and current issues. “Through these messages, mass communication experiences offer strangers an adaptive function that complements their interpersonal communication processes: they provide strangers with images of the host culture that are not readily available in their limited interpersonal environment” (Kim, 1988, p. 115). For example, Stilling (1997) found that immigrants who viewed a large quantity of host television programming acculturated more quickly than those who viewed less host programming. Woo and Dominick (2003) found associations between international students’ American television consumption and their estimates of the prevalence of socially undesirable behaviors in America.

Such findings suggest that cultivation theory is a sensible framework within which to examine acculturation in sojourners and immigrants. From the cultivation perspective, greater media use may lead to higher belief in the media-portrayed reality. Consequently it follows that sojourners gathering information from using American media would develop a perspective of American culture that would be reflective of

the media-portrayed reality. These perspectives on American culture could conceivably aid in the process of acculturation through a shift in values from the ethnic culture to the host culture; something akin to a second-order cultivation effect. Researchers have also noted that *ethnic* media use, while fulfilling entertainment needs, might facilitate an ingroup outlook and slow acculturation (Kim, 2001). Therefore we predicted that a *ratio* of U.S. to Indian media use predicts acculturation levels (see Potter & Chang, 1990).

- H<sub>1a</sub>: Respondents with a *higher proportion* of American television viewing relative to Indian television viewing have higher acculturation levels.
- H<sub>1b</sub>: Respondents with a *higher proportion* of American other media use relative to Indian media use have higher acculturation levels.

### *Moderator Variables*

The quest for moderators of cultivation effects arose from criticism that cultivation theory did not allow for individual differences in television viewers. In response to this criticism, Gerbner et al. (1980) introduced the concepts of mainstreaming and resonance to account for variability in cultivation effects, and other moderating effects were also considered. The moderating effects of perceived reality of television were studied extensively (Elliot & Slater, 1980; Hawkins, 1977; Perse, 1986; Potter, 1986). Shrum (2001) presented evidence that cognitive processing strategies might moderate cultivation effects. Shrum and Bischak (2001) found evidence that supported the tenets of resonance, i.e., direct experience moderates associations between viewing and cultivation. Additionally, Kwak, Zinkhan, and Dominick (2002) found evidence for gender as a moderating variable in a cross-cultural study of cultivation effects. In keeping with this endeavor to account for individual differences, in this study we examined specific media- and culture-related variables that might moderate the acculturation effects of media use. In the following sections we argue the relevance of testing each of these as moderators of cultivation effects.

### *Perceived reality of television*

Perceived reality of television is believed to influence viewing involvement and relevance, which in turn may enhance/detract from viewing effects (Shapiro & Chock, 2003). Hawkins (1977) suggested that “realistic” information on television might lead to stronger effects. For example, Potter (1986) found that estimation of victimization, as a function of television viewing, was contingent upon the belief that television content was realistic. Thus, perceived reality of television appears to be an important moderator of cultivation effects and might enhance or detract the effects of viewing television on acculturation levels. Thus,

- H<sub>2</sub>: Perceived reality of American television moderates the relationship between viewing American television and acculturation levels such that cultivation effects (a.k.a. acculturation) are stronger when perceived realism is high and weaker when perceived realism is low.

*Filial attachment*

Asian Indian sojourners come from a collectivistic society, where individual decisions may be subordinate to family or ingroup goals (Hofstede, 1980; Sharma, 1980). Family, especially parents, plays a key role in everyday decision making (D. Sinha & Tripathi, 1994; J. B. P. Sinha, Vohra, Singhal, Sinha, & Ushashree, 2002). The degree to which parents are influential has been termed filial attachment. Within this group, we hypothesized that those who score *higher* on filial attachment would not deviate from traditional values for fear of appearing deviant and alienating their families. In line with research on resonance (e.g., Shrum, 2001), the real-world influence of parents and family should be particularly strong for those high in filial attachment, and hence media effects should be suppressed in these individuals.

- H<sub>3</sub>: Filial attachment will moderate the relationship between using American media and acculturation levels such that cultivation effects will be stronger for lower values of filial attachment and weaker for higher values of filial attachment.

*Degree of intimacy of host and ethnic relationships*

Sojourners begin constructing new relationships with host culture individuals after leaving friends and family members back home (Kim, 2001). These relationships allow sojourners to learn and to practice host culture rules, norms, and language, as well as providing psychological comfort, higher satisfaction levels, and a shift in values towards those of the host culture (Noels, Pon, & Clément, 1996; Shah, 1991). In a complementary fashion, prolonged ethnic ingroup interpersonal contact at the expense of host interpersonal networks *impedes* adaptation in the host culture (Wong-Rieger & Quintana, 1987). Thus, we must examine whether interpersonal contacts moderate the acculturation effects of media exposure. Revisiting resonance, we predicted that intimate host relationships aid in the process of acculturation, while intimate ethnic relationships disrupt the process of acculturation.

- H<sub>4</sub>: Degree of intimacy of relationships with Americans moderates the relationship between using American media and acculturation levels; cultivation effects are stronger for higher values of intimacy with Americans, and weaker for lower levels.
- H<sub>5</sub>: Degree of intimacy of relationships with Indians in America moderates the relationship between using American media and acculturation levels; cultivation effects are weaker when intimacy with Indians is high and stronger when it is low.

*Acculturation needs*

According to the uses and gratifications tradition, individuals actively seek out mass media experiences that can meet their cognitive, social, or emotional needs (Katz, Blumler, & Gurevitch, 1974). Reece and Palmgreen (2000) found that, based on acculturation needs, there were significant differences in motives for viewing American television in India versus America for their sample of Asian Indian graduate students.

Similarly, Yang et al. (2004) found that acculturation needs were associated with media-use motives and patterns. Different media-use motives might influence media effects. People using media with the explicit goal of understanding the host society may be more susceptible to being influenced than others.

- H<sub>6</sub>: Acculturation needs moderate the relationship between using American media and acculturation levels; cultivation effects are stronger for higher values of acculturation needs and weaker for lower values of acculturation needs.

### *Combined effects of variables*

Each of the previous variables has theoretically predictable relationships with acculturation independent of the effects they may have in moderating cultivation processes. Given the broader interest in cultivation and acculturation processes, we investigated their combined effects on acculturation, with a particular interest in which predicted the most unique variance in acculturation levels.

## **Method**

### *Participants and Procedures*

Asian Indian graduate and undergraduate students enrolled across a variety of courses in a large southwestern university completed a questionnaire. Fifteen additional Asian Indian students from other educational institutions across the United States also participated, bringing the total to 114 participants (64% male, 36% female; 19–30 years old,  $M = 25.11$ ,  $SD = 2.90$ , Average time spent in the United States = 2 years and 10 months). A plurality of participants indicated that they were unsure about their future plans after completing their studies (Go back to India = 19.3%, Stay and work/live in the United States = 31.6%, Undecided = 48.2%). No significant differences were found in terms of respondent profiles or any other variables between the southwestern participants and the others.

An announcement was posted on the Asian Indian Students listserv for the southwestern university soliciting participation in the study. The rest of the sample was reached through contacts of the first author; they responded via e-mail. Out of 122 responses, six were discarded because they were U.S. citizens by birth and had been here for most of their life. Two outliers aged 49 and 55 years were also excluded to ensure relative homogeneity of age in the sample. Participants collected a questionnaire from the first author and completed it at their convenience. The questionnaire elicited information on respondents' media consumption and variables related to acculturation. Most measures were Likert scales, and reliabilities are reported as Cronbach's alpha. The questionnaire was divided into three sections—questions pertaining to media use, acculturation, and the moderator variables. The project was approved by the relevant Human Subjects Board.

*Predictor Variables: Time Spent Using Media*

As per Shrum, Wyer, and O'Guinn (1998) and Segrin and Nabi (2002), respondents indicated the number of hours of TV viewed in four time periods for an average weekday, and on an average Saturday or Sunday. The four time periods were 6 a.m. to noon, noon to 6 p.m., 6 p.m. to midnight and midnight to 6 a.m. These data were combined by weighing the weekday viewing by a factor of five and the weekend viewing by a factor of two, to obtain an "average TV viewing hours per day" variable. This measure was applied to Indian and American television viewing. Amount of other media consumption was ascertained by asking questions such as "On an average day, how many hours do you spend surfing American (or Indian) Web sites?" Similar questions were asked about time spent on American and Indian magazines, newspapers, and movies. Means are in Table 1. Indian television is typically available in the United States via costly subscription satellite services; video/DVD rentals and magazines are available through mail order or Indian specialty stores. In the location from which most of our sample was drawn, three such stores offer a variety of such items. In general, Indian media are accessible, but they cost more and require additional effort to access.

*Criterion Variable: Acculturation Levels*

Respondents completed a modified version of the Suinn-Lew Asian Self-Identity Acculturation Scale (Suinn, Ahuna, & Khoo, 1992). The scale has been found to be reliable and valid and has been used extensively in this area of research (e.g., Parker, Chan, & Tully, 2005; Roesch, Wee, & Vaughn, 2006). Responses were coded

**Table 1** Means (hour) for Daily American and Indian Media Consumption

	Mean	SD
American		
Television	3.11	3.03
Newspapers	.68	.83
Magazines	.56	.72
Internet	1.74	1.68
Movies*	3.56	3.16
Indian		
Television	1.03	1.99
Newspapers	.88	1.58
Magazines	.54	1.27
Internet	1.10	1.06
Movies*	3.16	3.32

\*On a weekly basis.



on a 5-point Likert scale, with higher scores reflecting greater acculturation to American society. Nine items assessed issues such as language preferences, community and friends association and preferences, food preferences, cultural and socio-religious participation (e.g., "What language do you prefer to speak?" The answers ranged from 1 "only native Indian languages" to 5 "only English"). The nine items formed a single factor ( $\alpha = .71$ ,  $M = 2.59$ ,  $SD = .45$ ).

### *Moderator Variables*

#### *Perceived realism of American television*

This was assessed using four modified items from the Perceived Realism Scale (Rubin, 1981, e.g., Television shows American life as it really is). Items were evaluated from 1 (Strongly disagree) to 5 (Strongly agree). These four items formed a single factor ( $\alpha = .73$ ,  $M = 2.63$ ,  $SD = .75$ ).

#### *Filial attachment*

A four-item scale measuring participants' attachment to their parents was created for this study. Items were "I believe that my parents know what is best for me," "I would never disobey my parents," "I wish my parents would put fewer restrictions on me," and "I would let my parents choose my life-partner for me." The items were evaluated on a Likert scale from 1 (Strongly disagree) to 5 (Strongly agree) and formed a single factor ( $\alpha = .72$ ,  $M = 2.99$ ,  $SD = .93$ ).

#### *Degree of intimacy with (a) Americans and (b) Asian Indian sojourners in America*

Respondents indicated how close their closest relationship was with an American, and separately with an Asian Indian, in America. The items were evaluated on a Likert scale from 1 (Not at all close) to 5 (Extremely close). Respondents scored a mean of 3.21 ( $SD = 1.28$ ) on degree of intimacy with Americans and 4.21 ( $SD = .94$ ) on degree of intimacy with Asian Indians.

#### *Acculturation needs*

Need for acculturation was measured with five items. Two items were created for this study and three were adapted from Reece and Palmgreen (2000). Participants were asked to rate their agreement with "I want to fit into American society," "I am interested in learning about American culture," "I am interested in learning about current affairs in the United States," "I am interested in making American friends," and "I am interested in how American people behave socially," on a scale from 1 (Strongly disagree) to 5 (Strongly agree). These items formed a single factor ( $\alpha = .79$ ,  $M = 3.75$ ,  $SD = .71$ ).

**Results**

Correlations between all variables are presented in Table 2. Nine hierarchical regression analyses were performed to test the hypotheses. The criterion variable was the acculturation levels scale. The first predictor in each analysis was a measure of media consumption—either the ratio of American to Indian television viewing, or the ratio of American to Indian other media consumption (magazines, newspapers, the Internet, and movies). Each analysis also included one of the hypothesized moderators: (a) perceived realism of television (only included for television

**Table 2** Correlation Matrix

	Indian TV	U.S. TV	Ratio U.S. TV	Indian other media	U.S. other media	Ratio U.S. other media
Acculturation levels	-.05	.09	.10	-.27**	.06	.38**
Indian TV	–	.44**	-.70**	.25**	.35**	.01
U.S. TV		–	.01	.14	.40**	.24*
Ratio–U.S. TV			–	-.18	-.13	.14
Indian Other Media				–	.49**	-.40**
U.S. Other Media					–	.27**
Ratio U.S. OMC <sup>a</sup>						–
Acculturation needs						
Perceived Realism of TV						
DIA <sup>b</sup>						
DII <sup>c</sup>						
	Acculturation needs	Perceived realism of TV	DIA <sup>b</sup>	DII <sup>c</sup>	Filial attachment	
Acculturation levels	.10	-.21*	.43**	-.13	-.22*	
Indian TV	.01	.18	.01	-.30**	.16	
U.S. TV	.12	.03	.13	-.09	-.12	
Ratio–U.S. TV	.15	-.18	.19	.23*	-.28**	
Indian Other Media	-.03	.21*	-.14	-.05	.05	
U.S. Other Media	.22*	.14	.05	-.27*	-.15	
Ratio U.S. OMC <sup>a</sup>	.29**	-.18	.30**	-.10	-.29**	
Acculturation needs	–	.06	.22*	.05	-.19*	
Perceived Realism of TV		–	-.06	-.03	.21*	
DIA <sup>b</sup>			–	.15	-.10	
DII <sup>c</sup>				–	.03	

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

<sup>a</sup>Other Media Consumption, i.e., ratio of U.S. other media consumption over total media consumption.

<sup>b</sup>Degree of Intimacy with Americans.

<sup>c</sup>Degree of Intimacy with Indians.

consumption), (b) filial attachment, (c) degree of intimacy with Americans, (d) degree of intimacy with Indians, and (e) acculturation needs. Finally each regression included the interaction term of the media measure and the moderator. Interaction terms were created using centered variables (Aiken & West, 1991). These analyses are summarized in Table 3. Preliminary analysis indicated that length of stay in the United States, age of participants, future plans, and gender were not significantly associated with acculturation levels; therefore they were not controlled for in the analyses.

In contrast with  $H_{1a}$ , television viewing did not predict acculturation levels in any analyses. In support of  $H_{1b}$ , higher ratios of time spent on U.S. to Indian consumption of other media (movies, newspapers, etc.) were associated with higher acculturation levels across the analyses in Table 3.

#### *Perceived realism of television*

$H_2$  predicted that perceived realism of television would moderate the relationship between viewing American television and acculturation levels. Regression analysis indicated no significant moderator effect. A significant direct effect for perceived realism of television revealed that higher perceived realism scores were associated with lower acculturation scores (see Table 3).

#### *Filial attachment*

$H_3$  predicted that filial attachment would moderate the relationship between viewing American television and acculturation levels. Regression analyses indicated no significant moderator effect. A significant direct effect for filial attachment revealed that high levels of filial attachment were associated with low levels of acculturation. This effect was not significant in the analysis involving other media.

#### *Degree of intimacy with Americans*

$H_4$  predicted that degree of intimacy with Americans would moderate the relationship between viewing American television and acculturation levels. Regression analyses indicated no moderator effects. However, in the analysis involving other media, there was a direct effect revealing that increased intimacy with Americans was associated with higher levels of acculturation.

#### *Degree of intimacy with Indians*

$H_5$  predicted that degree of intimacy with Indians would moderate the relationship between viewing American television and acculturation levels; however no significant results emerged in the analyses involving television or other media.

#### *Acculturation needs*

$H_6$  predicted that acculturation needs would moderate the relationship between viewing American television and acculturation levels. No effects emerged that involved acculturation needs, either with TV viewing or other media consumption.

**Table 3** Summary of Hierarchical Regression Analyses Predicting Acculturation Levels

	$\beta$	$t$	$pr^a$	$R^2$	$F$
TV Viewing <sup>b</sup>	.03	.26	.03		
Perceived Realism of TV <sup>c</sup>	-.31	-3.02**	-.30		
TV Viewing $\times$ Perceived Realism	.09	.91	.09		
Complete Model				.10	3.52*
TV Viewing	.03	.28	.03		
Filial Attachment	-.23	-2.16*	-.22		
TV Viewing $\times$ Filial Attachment	.09	.89	.09		
Complete Model				.07	2.43
Other Media Consumption (OMC) <sup>d</sup>	.35	3.62**	.34		
Filial Attachment	-.15	-1.52	-.15		
OMC $\times$ Filial Attachment	-.01	-.13	-.01		
Complete Model				.17	6.88**
TV Viewing	.02	.25	.02		
Intimacy with Americans	.02	.74	.28		
TV Viewing $\times$ Intimacy with Americans	.14	.36	.14		
Complete Model				.17	6.49**
Other Media Consumption (OMC)	.28	3.13**	.29		
Intimacy with Americans	.34	3.80**	.35		
OMC $\times$ Intimacy with Americans	.11	1.35	.13		
Complete Model				.27	12.44**
TV Viewing	.12	1.13	.12		
Intimacy with Indians	-.11	-1.02	-.10		
TV Viewing $\times$ Intimacy with Indians	-.03	-.30	-.03		
Complete Model				.02	.68
Other Media Consumption (OMC)	.43	4.61**	.42		
Intimacy with Indians	-.04	-.51	-.04		
OMC $\times$ Intimacy with Indians	-.13	-1.38	-.13		
Complete Model				.18	7.67**
TV Viewing	.10	.98	.10		
Acculturation Needs	.00	.01	.00		
TV Viewing $\times$ Acculturation Needs	.00	.08	.00		
Complete Model				.01	.33
Other Media Consumption (OMC)	.38	3.97**	.37		
Acculturation Needs	-.01	-.11	-.01		
OMC $\times$ Acculturation Needs	-.00	-.06	-.01		
Complete Model				.15	5.96**

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

<sup>a</sup> Partial correlation.

<sup>b</sup> Computed as a ratio of hours spent with U.S. television to hours spent with Indian television.

<sup>c</sup> Perceived realism was examined as a moderator only for television use and not for other media, because the measure has been developed specifically for television.

<sup>d</sup> Computed as a ratio of hours spent with U.S. other media (magazines, newspapers, Web sites, and movies) to hours spent with Indian other media.

**Table 4** Summary of Hierarchical Regression Analyses Predicting Acculturation Levels: Separating Indian and U.S. Media Effects

	$\beta$	$t$	$pr^a$	$R^2$	$F$
Indian Other Media Consumption (OMC) <sup>b</sup>	-.28	-2.96**	-.28		
Filial Attachment	-.22	-2.35*	-.24		
Indian OMC $\times$ Filial Attachment	.06	.62	.06		
Complete Model				.13	5.29**
U.S. Other Media Consumption (OMC)	.01	.13	.01		
Filial Attachment	-.25	-2.47*	-.24		
U.S. OMC $\times$ Filial Attachment	-.04	-.35	-.04		
Complete Model				.06	2.20
Indian Other Media Consumption (OMC)	-.23	-2.56*	-.24		
Intimacy with Americans	.38	4.30**	.38		
Indian OMC $\times$ Intimacy with Americans	-.04	-.48	-.04		
Complete Model				.23	10.74**
U.S. Other Media Consumption (OMC)	.04	.47	.04		
Intimacy with Americans	.43	4.89**	.43		
U.S. OMC $\times$ Intimacy with Americans	.05	.63	.06		
Complete Model				.19	8.13**
Indian Other Media Consumption (OMC)	-.32	-3.20**	-.31		
Intimacy with Indians	-.13	-1.36	-.13		
Indian OMC $\times$ Intimacy with Indians	.08	.78	.07		
Complete Model				.10	3.96**
U.S. Other Media Consumption (OMC)	.02	.19	.01		
Intimacy with Indians	-.09	-.96	-.08		
U.S. OMC $\times$ Intimacy with Indians	-.07	-.74	-.07		
Complete Model				.02	.70
Indian Other Media Consumption (OMC)	-.28	-2.68**	-.28		
Acculturation Needs	.08	.91	.08		
Indian OMC $\times$ Acculturation Needs	-.02	-.27	.02		
Complete Model				.08	3.29*
U.S. Other Media Consumption (OMC)	.02	.25	.02		
Acculturation Needs	.11	1.05	.11		
U.S. OMC $\times$ Acculturation Needs	.05	.58	.05		
Complete Model				.01	.53

\* $p < .05$ , \*\* $p < .01$ .<sup>a</sup>Partial correlation.<sup>b</sup>Hours spent with either U.S. or Indian other media (magazines, newspapers, Web sites, and movies).

In summary, analyses revealed no support for the predicted moderators. A fairly consistent pattern did emerge indicating that other media consumption (but not television viewing) was related to acculturation levels. To further understand this effect,

we re-ran the analyses involving significant effects for other media consumption separately for U.S. and Indian media (see Table 4). Across all analyses, amount of time spent on *Indian* other media consumption significantly predicted acculturation levels (negatively), while U.S. other media consumption had no effect. Separate correlations run on the different forms of other media revealed that in all cases except for the Internet, time spent on Indian media consumption was significantly correlated with acculturation levels (newspapers  $r = -.24$ ,  $p < .05$ ; magazines  $r = -.22$ ,  $p < .05$ ; movies  $r = -.25$ ,  $p < .05$ ; Web sites  $r = -.17$ ,  $p > .05$ ). In contrast, no forms of American other media consumption were correlated with acculturation ( $r$ s, respectively,  $-.06$ ,  $-.00$ ,  $.13$ ,  $.02$ , all  $ps > .05$ ).

In addition, a regression analysis was conducted with acculturation levels as the criterion, and the following predictors, viz.: (a) ratio of American television viewing to Indian television viewing, (b) ratio of American other media consumption to Indian other media consumption, (c) perceived realism of television, (d) filial attachment, (e) degree of intimacy with Americans, (f) degree of intimacy with Indians in America, and (g) acculturation needs. The overall model was significant,  $F = 6.11$ ,  $p < .001$ , adjusted  $R^2 = .29$ . Significant predictors of acculturation levels included ratio of American other media consumption ( $\beta = .25$ ,  $p < .05$ ), perceived realism of television ( $\beta = -.34$ ,  $p < .001$ ), filial attachment ( $\beta = -.22$ ,  $p < .05$ ), degree of intimacy with Americans ( $\beta = .22$ ,  $p < .05$ ), and degree of intimacy with Indians in America ( $\beta = -.32$ ,  $p < .05$ ). Two predictors, namely, ratio of American television viewing and acculturation needs, were not significant ( $\beta$ s  $-.05$  and  $-.06$ , respectively). Perceived realism of television emerged as the strongest predictor of acculturation in the analysis.

## Discussion

The primary aim of this investigation was to explore moderators of the cultivation effect on acculturation levels. Despite an absence of moderator effects, further discussion is warranted for (a) the significant associations between consumption of Indian other media and acculturation levels and (b) the direct associations between certain moderator variables and acculturation.

### *Television and other media effects*

We failed to find significant associations between hours spent viewing American or Indian television and acculturation levels. However, significant correlations were found between consumption of Indian other media and acculturation levels, both in terms of frequency as well as in terms of amount of time spent. Additionally, other media consumption was a significant predictor of acculturation levels when included with all the moderator variables in a regression analysis ( $\beta = .25$ ,  $p < .05$ ). Historically, researchers studying cultivation effects have focused on exposure to television programming as the predictor variable in cultivation analyses. A few researchers have

looked at the cultivation effects of other media such as newspapers (e.g., Vergeer, Lubbers, & Scheepers, 2000), and our results support further such investigation. The increasing globalization of the media environment (e.g., via the Internet and satellite technology) is blurring the lines between traditional and new media (e.g., Dahan & Sheffer, 2001; Karim, 2003). Indian students in the United States may be reading online newspapers and watching Indian television on their computers—complex hybrid forms of exposure that are not accounted for with current measurement procedures. The dynamics of such media exposure are worthy of more attention. Future research might attend more to specific genres of television exposure (Potter & Chang, 1990), and prior exposure to host television in the host culture (exposure to American television programming in India for our case) to understand television's effects more broadly.

Of more interest than the lack of effects for television are the broad indications that exposure to Indian media other than television is associated with acculturation. In particular, the results indicated relatively strong effects ( $r_s > -.20$ ) between acculturation and consumption of Indian newspapers, magazines, and movies. The current data are cross-sectional and cannot make strong arguments concerning causality here; however the effect suggests that print media and movies may be important means by which sojourners maintain their host culture and hence may function as barriers to acculturation. More research should examine the effects of such media on acculturation.

### *Moderator Variables*

Moderator effects in the regression analyses were not significant. Possibly the tests lacked the power to detect significant moderator effects, a substantial problem with this form of analysis (McClelland & Judd, 1993). In our case, such problems are exacerbated by the difficulties in obtaining large numbers of Asian Indian sojourners, and by a homogeneous sample. Our participants came from upper middle-class backgrounds in large Indian cities, and most had a science background. It is likely that they come from more "Westernized" families. This homogeneity suppresses variance in all variables. One reason behind the homogeneity of this sample could be that families from rural India may not possess the economic means to support living and studying in the United States. Additionally, strong cultural and religious taboos on foreign travel may prevent those from orthodox family backgrounds from embarking on sojourns abroad.

A number of the moderators—degree of intimacy with Americans, filial attachment, and perceived reality of American television—were found to be strong predictors of acculturation levels. The literature supports these relationships. Kim's (2001) work demonstrates how contact with people from the host culture aids in the acculturation process. Intimate contact provides more insight than superficial contact and does so in a situation of relatively low anxiety (Pettigrew, 1998), and thus it is not surprising that intimacy with Americans predicts acculturation. The influence of filial attachment is sensible, given that people with higher levels of filial attachment might

be more likely to anticipate returning to India (given their connection to their family). Filial attachment is also associated with allocentrism/collectivism (Triandis, 1982). Individuals who place high value on respecting and adhering to group norms often face challenges in acculturation, especially to an individualistic culture. Attachment and obligation to family in India and to the broader Indian collective would suppress the desire for adaptation to the United States. Finally, higher scores on the perceived realism of television scale were associated with lower scores on the acculturation scale. It seems likely that the causal direction here is from acculturation to beliefs about television: those who have acculturated more have developed sufficient local knowledge to understand that television does not provide an accurate image of U.S. culture.

### Conclusion

Research should continue to explore the cultivation-acculturation connection. We advocate work on other media and media convergence. Traditional media's distribution over new channels (e.g., Internet, newspapers) has the potential to reinvigorate cultivation theory. This work should also examine whether different media have different influences on acculturation, and whether sojourners have different motives for their consumption of media such as the Internet and newspapers. Research should examine cultural differences among sojourners, for instance via direct comparison of cultivation effects between allocentric and idiocentric sojourners. Finally, despite practical constraints, longitudinal studies of sojourners' acculturation in host cultures would help resolve causality questions and clarify associations between media variables, interpersonal networks, and acculturation. The use of acculturation levels as the criterion variable moves cultivation theory from domain-specific effects (e.g., violence, perceptions of professions) to broader (and important) issues of personal worldviews. Acculturation is more than simply a change in beliefs about a specific issue; rather it is a fundamental change in how individuals understand the world.

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