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Cultivating intergroup emotions: An intergroup threat theory approach

Anita Atwell Seate Atwell Seate
University of Maryland at College Park

Rong Ma
Butler University, rma@butler.edu

Hsin-Yi Chien
University of Maryland

Dana Mastro
University of California, Santa Barbara

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Abstract

The current study tests whether media consumption is associated with negative intergroup emotions toward Blacks, Latinos, and Asians and whether media use indirectly influences intergroup emotions via threat perceptions. We do so, using a two-study survey design. Results from Study 1 indicate that media consumption is associated with anger toward Latinos and Asians, but not anger towards Blacks. We also found that media use was associated with anxiety towards Blacks, Latinos, and Asians. Results from Study 2 indicate that media use indirectly influences anger and anxiety towards Blacks and Latinos through perceptions of threat. Media consumption did not indirectly influence anger and anxiety towards Asians, though perceptions of threat did directly influence intergroup emotions toward this group. The discussion highlights the important, but negative, role of media in intergroup processes.

Keywords: cultivation theory, intergroup threat theory, intergroup emotions

Cultivating Intergroup Emotions: An Intergroup Threat Theory Approach

Content analytic work routinely documents that non-dominant groups (e.g., racial and ethnic minorities) are portrayed in the media in stereotypical and menacing ways (Dixon & Williams, 2015; Mastro, 2009; Mastro & Behm-Morawitz, 2005; Mastro & Tukachinsky, 2012). Indeed, media research provides overwhelming evidence that members of non-dominant groups are portrayed in the media as more threatening (e.g., having the intention to perform hostile actions or performing hostile actions) than their dominant group counterparts (e.g., Whites in the U.S.; Dixon & Linz, 2000a; Entman, 1992; Hoffner & Cohen, 2013). Given this, it comes as no surprise that scholars have noted that the role of media in intergroup processes tends to be a negative one (Atwell Seate, 2017; Mastro & Atwell Seate, 2012).

Consuming a media diet rife with these threatening portrayals of non-dominant groups is associated with a host of negative intergroup outcomes, including stereotype endorsement (e.g., Mastro, Behm-Morawitz, & Ortiz, 2007) and unfavorable intergroup judgments (e.g., Dixon, 2008). Put differently, the existing literature illuminates the harmful cognitive consequences associated with consuming threatening images of non-dominant groups (for a review see Mastro & Atwell Seate, 2012). However, there is far less research linking media exposure to emotional or affective intergroup outcomes, albeit with some notable exceptions (e.g., Ramasubramanian, 2010). This is surprising given that intergroup scholars have shown the importance of affective mechanisms in intergroup relations, more broadly (e.g., Harwood & Joyce, 2012), and media intergroup scholars have articulated the need to integrate affective mechanisms into our understanding of the role of media in intergroup processes more specifically (see Mastro & Atwell Seate, 2012). To address this gap in the literature, the current study integrates insights from cultivation theory and intergroup threat theory to make three unique contributions to these

literatures. First, the current study will provide evidence that the media cultivate anxiety and anger towards non-dominant groups in the U.S. Thus, our work extends the cultivation perspective by including intergroup affective mechanisms, across non-dominant racial/ethnic groups in the U.S., as important second-order outcomes. Second, this research shows that threat perceptions are an important intervening variable between media consumption and intergroup emotions. And finally, the current work extends intergroup threat theory, by providing evidence that media consumption is an important antecedent variable to threat perceptions and subsequent affective reactions. To do so, the current study conducts two surveys. The first survey examines whether media use is associated with intergroup anxiety and anger. Study 2 extends the findings from Study 1 by testing the indirect effect of media exposure on intergroup anxiety and anger, via threat perceptions.

Cultivation Theory

Cultivation theory argues that the media landscape, particularly television, presents a homogenous and repetitive set of messages that underscore important cultural ideologies that typically reflect the dominant groups' value system (Morgan, Shanahan, & Signorielli, 2015). Although almost no one is immune from the influence of television, those who consume more television are predicted to perceive their social world in ways congruent with the message system. Although the media landscape has changed quite a bit since the theory's original conceptualization, with the advent of the internet and subsequent technological advances, including streaming services and social media, Morgan and colleagues (2015) convincingly argued that these technologies can be thought as "'delivery vehicles' for 'more of the same' content, especially for heavy viewers" (p. 678).

The research agenda laid out by the cultivation perspective (i.e., the cultural indicators paradigm) is that scholars should: a) examine the institutional factors dictating message programming (i.e., institutional analysis), b) examine the images and themes in message content (i.e., message system analysis), and c) examine the relationship between media exposure and audience members' social perceptions (i.e., cultivation analysis, Morgan et al., 2015). Cultural indicators research provides evidence that in the U.S.: a) racial and ethnic minorities are underrepresented as institutional decision makers (Hunt & Ramón, 2015), b) racial and ethnic minority groups tend to be more negatively portrayed in the media compared to their dominant group counterparts (e.g., Dixon & Linz, 2000a; Mastro, 2009), and c) consuming messages that portray racial and ethnic minorities as threatening is associated with negative perceptions of racial and ethnic minority groups and their members (see Mastro & Atwell Seate, 2012). Even though all three lines of inquiry outlined by the cultural indicators paradigm have been explicitly tested in the media intergroup arena, the bulk of the empirical evidence in this domain has been conducted under the umbrellas of message system analysis and cultivation analysis (Mastro & Tukachinksy, 2012).

Understanding the message system through the lens of intergroup threat theory.
Intergroup threat theory (ITT) suggests that people have the tendency to perceive outgroups (i.e., social groups to which the individual does not belong) as a threat to their ingroup (i.e., social groups to which the individual does belong; Stephan & Stephan, 2000). ITT argues that these threat perceptions are adaptive because, "[p]erceiving threats when none exist may be a less costly error than not perceiving threats when in fact they do exist" (Stephan, Ybarra, & Rios Morrison, 2009, p. 43). There are two types of threat perceptions outlined by ITT: realistic threats (i.e., threats to the ingroup's physical wellbeing and resources) and symbolic threats (i.e.,

threats to the ingroup's value and belief system). ITT posits that both distal factors (e.g., group

size, history of conflict) and individual difference variables (e.g., chronic mortality salience)

predict threat perceptions (Stephan et al., 2009), though little work has investigated the role of

media in this process (for an exception see Atwell Seate & Mastro, 2015). However, as

previously noted, a survey of the content analysis literature suggests that non-dominant groups in

the U.S. are consistently portrayed in stereotypical and threatening ways (Dixon & Williams,

2015; Mastro, 2009; Mastro & Behm-Morawitz, 2005). Given this, we will provide a brief

overview of the content analysis literature highlighting how Blacks, Latinos, and Asians are

portrayed as both realistic and symbolic threats in the U.S. media landscape, using ITT as our

lens. We chose these three groups because a recent longitudinal meta-analysis of the content

analysis literature indicates that these are the three racial/ethnic groups that have historically

received consistent media coverage in the U.S. (Mastro & Tukachinksy, 2012).

       According to ITT, one of the primary components of realistic threat is the concern

surrounding the physical safety of the ingroup (Stephan et al., 2009). Notably, the literature

indicates that both Blacks and Latinos are consistently shown as a physical threat to the safety of

others, particularly in the news media (e.g., Entman, 1992). To illustrate, Dixon and Linz

(2000b) found that both Blacks and Latinos were more likely to be shown as crime perpetrators,

as opposed to crime victims, on the local news in Los Angeles; whereas Whites were more likely

to be shown as crime victims compared to crime perpetrators. Moreover, when examining

homicides only, Blacks were again more likely to be shown as the perpetrators and not the

victims, and Whites were again shown as the victims and not the perpetrators. With regard to

Latinos, when only examining homicides, this group was nearly as likely to be shown as crime

perpetrators ($N = 32$) as crime victims ($N = 34$). Although more recent work suggests that the

Black, but not Latino, criminal stereotype is less apparent in both the news (Dixon & Williams,

2015) and entertainment programing (e.g., Mastro, 2009), other research finds that the Black

criminal stereotype remains highly prevalent in other domains outside of cable and network

news, such as sports news (e.g., Mastro, Blecha, & Atwell Seate, 2011).

The second component of realistic threat is that outgroups are perceived as threatening to

a group's resources, particularly economic resources (Stephan et al., 2009). Albeit in different

ways, the literature suggests that all three racial/ethnic groups are portrayed as threats to the

economic resources and shared social systems (e.g., welfare). Research indicates that Blacks are

routinely linked with unpopular economic issues, such as welfare, in the media (e.g., Gilens,

1999). Latinos are overrepresented in the news media as both legal and illegal immigrants

(Dixon & Williams, 2015), and a recent national study by the National Hispanic Media Coalition

(2012) found that conservative news viewers (i.e., Fox News) perceived Latinos as being on

welfare and taking jobs away from U.S. Americans. Research by Clawson and Trice (2000)

found that Blacks were overrepresented as being poor in news magazines (compared to data from

the House Ways and Means Committee) and that an overwhelming majority of the stories

focused on welfare. Asians on the other hand are underrepresented as poor and are not linked to

welfare programs (Clawson & Trice, 2000); however, this does not indicate that this group is not

linked to economic threats. Kawai (2005) noted that Asians in the media are portrayed as either

the model minority or the yellow peril stereotype. This stereotype dialectic both reaffirms and

threatens White America's economic hegemony. The model minority stereotype allows Whites

to deny institutional support towards people of color (typically Blacks), whereas the portrayals

utilizing the yellow peril stereotype serve as a reminder to Whites that their financial hegemony

is threatened by this group. Taken together, all three groups are portrayed as an economic threat

in the media.

Finally, all three groups are portrayed as symbolically threatening in the U.S. media

landscape. First, 'illegal aliens' were consistently framed on the highly watched Bill O'Reilly

show as violating U.S. social norms and as threats to U.S. moral values, including liberty and

democracy (Conway, Grabe, & Grieves, 2007). Given that Latinos are overrepresented as

undocumented immigrants in the news (Dixon & Williams, 2015), it is safe to say that these

threats are linked to Latinos. Indeed, research finds that O'Reilly viewers endorse (symbolically)

threatening stereotypes of Latinos (National Hispanic Media Coalition, 2012). Blacks have been

historically portrayed as the sambo, a lazy, happy-go-lucky character (e.g., Bogle, 2001) that

violates the Protestant work ethnic norm in the U.S. Although portrayals of Blacks in the media

have somewhat improved (Mastro, 2009), the sambo stereotype can still be found in

contemporary media fare (e.g., Oh, 2012). Much less research has examined the portrayals of

Asians in U.S. media (see Mastro, 2009); however, this body of work does suggest that Asians

are portrayed as foreigners, with broken English who are unable to assimilate to U.S. culture

(Oh, 2012; Zhang, 2010). Taken together, the above research suggests that all three groups are

portrayed in the U.S. media in terms of both realistic and symbolic threats.

Cultivation effects. Although effects cannot be determined from content analytic work,

research provides evidence that these images do cultivate stereotypes in line with these threats.

To illustrate, Mastro, Behm-Morawitz, and Ortiz (2007) found that, as television consumption

increased, individuals reported increasing perceptions that Latinos are criminals (i.e., a physical

threat) and have low work ethic (i.e., symbolically threatening the Protestant work ethic of

Whites). Similarly, Dixon (2008) found that increased exposure to news that overrepresented

Blacks as criminals was associated with increased perceptions that Blacks are violent. As such, it

seems likely that the media could also cultivate emotional responses that link these groups with

negative emotions including anxiety (i.e., a negative emotion that arises when the environment

contains an existential threat, and the person appraises the environment as ambiguous and

uncertain, see Lazarus, 1991, pp. 234-235) and anger (i.e., a negative emotion that arises when a

person appraises the environment and/or the social actors in the environment as committing, "a

demeaning offense" against the self or close relational others, see Lazarus, 1991, p. 222). These

conjectures are congruent with mean world syndrome cultivation research that finds heavy

exposure to television is associated with perceptions that the social environment is a dangerous

place (see Morgan et al., 2015) and ITT research that finds intergroup threat perceptions are

associated with intergroup emotions (i.e., emotions that are experienced based on one's social

identity).

ITT maintains that intergroup threat perceptions are associated with negative intergroup

emotions, including anxiety and anger (Stephan et al., 2009). As stated above, ITT argues that

these threat perceptions are adaptive because without these threat perceptions, harm could

potentially befall one's ingroup due to inaction (Stephan et al., 2009). ITT does not explicitly

connect this notion of adaptation to the emotional consequences of threat perception, though it is

complementary with its premise. However, there is a wealth of research in the emotion literature,

more broadly, suggesting that humans experience emotion to help adapt and cope with their

social environment (see Lazarus, 1991). Applying this logic to the current context, the anger and

anxiety stemming from the threat perceptions are likely adaptive because they could potentially

help protect one's ingroup from outgroup threats. According to Lazarus (1991) anger is

associated with the action of tendency of attacking which would be adaptive responses to some

realistic threats (e.g., economic threats). Conversely, anxiety would be associated with avoidance or escape behaviors, which could be adaptive if one's physical safety were threatened. Research provides some evidence for these claims. For example, work by Stephan and associates (2002) indicates that the more individuals recount having threatening interracial contact the higher levels of intergroup anxiety they report. Although much less work has integrated the role of media in this process, recent work by Atwell Seate and Mastro (2015) found that people who were exposed to a threatening news story about immigration reported more intergroup anxiety compared to those who were exposed to a non-threatening immigration news story.

The Current Study and Hypotheses

When the assumptions of ITT are integrated with insights from cultivation theory, it seems likely that the media could cultivate emotional responses that link racial minorities with anger and anxiety. Because Blacks, Latinos, and Asians are portrayed as both realistic and symbolic threats (e.g., Entman, 1990; Kawai, 2005; Oh, 2012), television consumption should be associated with group-level threat-related emotions, including anxiety and anger. Based on the above rationale, the following hypotheses are proposed:

H1a: For individuals who are not Black, overall daily television consumption will be positively associated with anxiety and anger towards Blacks.

H1b: For individuals who are not Latino, overall daily television consumption will be positively associated with anxiety and anger towards Latinos.

H1c: For individuals who are not Asian, overall daily television consumption will be positively associated with anxiety and anger toward Asians.

Method

Respondents and Procedures

Respondents were recruited using a student referral system, wherein students were asked to identify someone else to complete an online questionnaire on their behalf after receiving Institutional Review Board approval at the University of Arizona on November 1, 2011. Specifically, students were asked to recruit respondents from a variety of age groups and, to ensure independent observations, students could only refer one individual who was not affiliated with the university (e.g., not a student) and resided in the U.S. Should the recruited individual want to participate, the student provided the email address to the researcher. The researcher then sent an email with a letter of consent and the link to the online questionnaire. Once the individual completed the anonymous online survey, the student received extra course credit for their help in recruitment process and the respondent received a $5 gift card. Respondents ($N = 254$) were mostly White (75.6%); however, 11.8% identified as Latino, 5.5% identified as Asians, 2.4% identified as Black, 1.2% identified as Native American, and 3.5% identified as Other. There were more females in the sample (74%) than males (26%). The average age of the sample was 43.64 ($SD = 11.27$).

Measures

Overall television consumption. General television consumption was measured using items adapted from Nabi (2009). Specifically, respondents were asked, "In the past six months, how many hours of TV did you usually watch during each of the following four time periods [morning, afternoon, evening, night] on one single weekday, on Saturday, and on Sunday on the average?" Responses range from "Never" to "More than 6 hours" on an eight-point scale. Totals for the three types of days were taken and a daily weighted average was computed.

Certainly, other approaches to gauging television exposure have been proposed which offer a range of information about the content features within these messages (e.g., Slater, 2004;

2016); however, the current method taps into the overarching message systems central to cultivation-related effects. In the domain of racial/ethnic portrayals, content analyses have consistently documented the tendency to offer unsympathetic and often negatively stereotypical characterizations of diverse groups on TV (e.g., Tukachinsky, Mastro, & Yarchi, 2015). Thus, the use of an overall consumption measure in the current context offers both a theoretically-consistent approach to cultivation analyses alongside a conservative test of this relationship, given certain variations based on exposure patterns.

Anxiety and anger toward minorities. Feelings of anxiety and anger toward minorities were measured using prejudicial feelings items adapted from Ramasubramanian (2010). Specifically, respondents were asked to: "Please look at each of the following adjectives and indicate how well they describe your feelings towards [Blacks, Latinos, and Asians] in general. Please be frank in your opinions." Responses ranged from "Strongly Disagree" to "Strongly Agree" on a seven-point scale. These items included anger, uneasy, anxiety, uncomfortable, and fear. The first category, anxiety, consisted of fear, anxiety, uneasiness, and uncomfortable. The second category was anger, which was measured with one item.

Covariates. Several lines of intergroup scholarship suggest that the level of intergroup contact with the target outgroup could influence various intergroup outcomes, such as attitudes towards the outgroup (e.g., Harwood & Joyce, 2012; Mastro et al., 2007). Hence, we are controlling for both quantity and quality of contact with the target outgroup. Specifically, we used two items to measure intergroup contact for use as control variables. Respondents reported the extent to which they had interpersonal contact with racial minorities (i.e., Blacks, Latinos, and Asians). Responses ranged from "Never/No Contact" to "Often" on a four-point scale. Individual also rated the nature of their interaction with these groups (1 = Very Unpleasant, 7 =

Very Pleasant). Table 1 provides means, standard deviations, and alphas for all variables.

Moreover, we are controlling for several demographic variables that have been shown in the

literature as consequential in intergroup processes including age (Pettigrew & Tropp, 2006), sex

(Sugiura, Mifune, Tsuboi, & Yokota, 2017), and race (Toosi, Babbitt, Ambady, & Sommers,

2012). Given the relatively small number of racial/ethnic minorities in our sample, we dummy-

coded race as White/Non-White.

Results

Before conducting analyses to test H1 (a-c), the skewness and kurtosis of variables were

assessed to determine if they needed to be transformed (Fink, 2009) and data were examined to

see whether there were missing data. First, there were no missing data. Second, the skewness and

kurtosis of anxiety towards Latinos and anxiety towards Blacks seemed reasonable (i.e., values

were within the absolute value of 1); however, the rest of the dependent variables were positively

skewed and were subsequently transformed following the logic outlined by Fink (2009).[1]

To test H1 (a-c), partial correlations were used, controlling for race, sex, age, quantity of

interpersonal contact with the minority group, and quality of interpersonal contact with the

minority group. We used one-tailed tests for all partial correlations. Please see Tables 2-4 for all

partial and zero-order correlations.

Hypotheses 1 (a-c) proposed that daily television viewing would be positively related to

anxiety and anger towards Blacks (H1a), Latinos (H1b), and Asians (H1c). Specifically, H1a

proposed that daily television consumption should be positively associated with anxiety and

anger towards Blacks for respondents who are not Black. Results indicate that daily television

consumption was positively related to anxiety ($r_p = .18$, $p < .01$) toward Blacks, but not anger ($r_p = .09$, $p > .05$). These findings provide partial support for H1a. Hypothesis 1b proposed that

that daily television consumption should be positively associated with anxiety and anger towards

Latinos for respondents who are not Latino. Daily television viewing was positively related to

anxiety ($r_p = .15$, $p < .05$) and anger ($r_p = .11$, $p = .05$) towards Latinos. Hypothesis 1b was

supported. Hypothesis 1c predicted that daily television consumption should be positively related

to anxiety and anger toward Asians for respondents who are not Asian. Results indicate that daily

television consumption was positively related to anxiety ($r_p = .14$, $p < .05$) and anger ($r_p = .11$,

$p < .05$) towards Asians. Hypothesis 1c was supported.

Study 1 Discussion

ITT argues that intergroup contact produces negative emotions when outgroups are

perceived as realistic or symbolic threats to their own social group's well-being. Integrating

insights from cultivation theory and ITT, Study 1 examined whether overall daily television

exposure was associated with anxiety and anger towards racial minorities in the U.S. With regard

to Blacks, overall daily television consumption was related to anxiety. However, the association

between overall daily television consumption and anger did not reach the traditional level of

significance, but was consistent with the typical cultivation effect size ($r = .09$, Morgan &

Shanahan, 1996). Similar to the findings regarding Blacks, daily television consumption was

associated with anxiety and anger towards Latinos and Asians. Taken together, these findings

complement experimental work that links media exposure to intergroup anxiety (e.g., Atwell

Seate & Mastro, 2015). Moreover, they provide evidence for the proposed intergroup threat

theory-based cultivation perspective by showing television consumption was associated with

negative intergroup emotions toward the outgroup. Thus, the current results extend the scope of

cultivation theory, arguing that cultivation not only applies to cognitive mechanisms, such as

stereotypes, but to group-level affective mechanisms as well. Although this extension to

cultivation theory is an important one, the current study's overall pattern of findings also provides valuable insight into additional mechanisms underlying the media influence on intergroup outcomes in particular.

However, there were several limitations to this study. First, given that we were testing assumptions rooted in the cultivation perspective, which is known to have small but cumulative effects, our sample was quite small. Hence, though the association between anger and daily television consumption for Blacks was on par with previous cultivation work, the correlation did not reach statistical significance. Second, a very small proportion of the sample identified themselves as not being primarily Black, Latino, Asian, or White (i.e., those who chose "other" for the racial/ethnic identity question). In our analyses we coded these individuals as always being in the outgroup (i.e., being "not Black", "not Latino", or "not Asian"); however, more specific information about these participant's race/ethnicity would be valuable. For instance, by always identifying these individuals as members of the outgroup, it is possible that the current results attenuate the association between the variables. And, finally, ITT explicitly posits that threat perceptions are a driving factor in the relationship between (television-mediated) contact and intergroup emotions. However, we did not test the indirect effect of television consumption on intergroup emotions via intergroup threat perceptions. To address these limitations, we conducted Study 2. More specifically based on cultivation theory and ITT, Study 2 tests the following hypotheses:

H1: Daily television consumption has a direct effect on perceived threat of: (a) Asians, (b) Blacks, and (c) Latinos.

H2: Daily television consumption has an indirect effect on anger towards (a) Asians, (b) Blacks, and (c) Latinos through perceived threat.

H3: Daily television consumption has an indirect effect on anxiety towards (a) Asians, (b) Blacks, and (c) Latinos through perceived threat.

Study 2

Method

Six hundred and twenty five U.S. citizens, 18 years or older, were recruited through the MTurk/Amazon system as a part of a larger project on intergroup relations after receiving Institutional Review Board approval at the University of Maryland on December 4, 2014. Participation was completely voluntary. Respondents were asked to complete an anonymous online questionnaire and were rewarded with 0.75 U.S. dollars upon completion of the survey. To control potential order effects, scales were counterbalanced, and items were randomly ordered within scales.

Participants

After deleting duplicate responses ($n = 18$), responses that took less than 3 minutes ($n = 60$), and responses that had substantial missing data on important variables of interests ($n = 144$), our sample consisted of 403 participants. Participants were 34 years old on average ($M = 34.33$, $SD = 12.24$), with 59.6% female. Most participants were White (73.1%), followed by African American (10.2%), Asian (6.2%), Latino (5%), other/multiracial (5%), and Native American (0.5%). To address one of the limitations of Study 1 we had individuals who categorized themselves of "other/multiracial" indicate how they would classify their racial/ethnic identity. Individuals who indicated their racial/ethnic identity aligned with a target group were removed from that specific set of analyses.

Measures

Daily television consumption. Daily television consumption was again measured using items adapted from Nabi (2009). Respondents were asked: "In the past six months, how many hours of TV did you usually watch during each of the following four time periods [morning, afternoon, evening, night] on one single weekday , on Saturday, and on Sunday on the average?" on an eight-point Likert-type scale. Totals for the four time periods were taken and a weighted mean was computed for daily media consumption. There were 13 missing cases. Because the missing cases did not differ from the others on any other variables of interest, we replaced the missing data with the mean.

Perceived threat. Feelings of perceived threat were measured by an item adapted from Mackie, Devos, and Smith (2000). Specifically, we asked participants to indicate how well threat described their feelings toward African Americans, Asians, and Latinos on a seven-point Likert scale. Because respondents with missing data did not differ from other respondents on other important variables, missing data were replaced with the mean.

Anxiety and anger toward minority groups. Feelings of anxiety and anger towards minorities were measured using prejudicial feelings items adapted from Ramasubramanian (2010). Specifically, respondents were asked to look at a set of emotion words (e.g., anger, uneasy) and indicate how well each word described their feelings toward African Americans, Asians, and Latinos on a seven-point Likert scale. Anxiety consisted of four emotions: fear, anxiety, uneasy, and uncomfortable (Cronbach's αs $\geq$ .90). Again, missing data on anxiety and anger were replaced with the mean. Please see Table 5 for all descriptive statistics. Because some variables are positively skewed, we transformed the data to achieve normality.[2]

Intergroup contact. We used two items to measure intergroup contact for use as control variables. Respondents were asked to indicate: **"**How many of your closest friends are [Asians,

African Americans, Latinos]?" on a scale from 1 (None) to 5 (All), and "How often have you

had an interesting conversation with a(n) [Asian, African American, Latino]?" on a scale from 1

(Often) to 4 (Never). The latter item was reverse coded.

Results

We used Model 4 from the PROCESS macro for SPSS (Hayes, 2013) to test the

hypothesized direct and indirect effects of media consumption on group-level emotions (i.e.,

anger and anxiety) toward minority groups through perceived threat. Intergroup contact, sex, and

age of respondents were entered as covariates. See Table 6.

The first hypothesis predicted daily television consumption has a direct effect on

perceived threat of (a) Asians, (b) Blacks, and (c) Latinos. Media consumption significantly

predicted perceived threat of Blacks, $b = 0.05$, CI 95% [0.01, 0.09], and Latinos, $b = 0.02$, CI

95% [0.004, 0.03], but not Asians, $b = 0.004$, CI 95% [-0.003, 0.01]. Therefore, H1 (b) and (c)

were supported and H1(a) was not supported.

The second hypothesis predicted an indirect effect of media consumption on anger

towards Asians (H2a), Blacks (H2b), and Latinos (H2c). When the target group was Asians, the

model was significant in predicting anger, $F(6, 364) = 61.30$, $R^2 = .50$, $p < .001$. Perceived threat

significantly predicted anger toward Asians, $b = 1.10$, CI 95% [0.98, 1.22], but because

television consumption did not have an indirect effect on threat perceptions toward Asians, H2(a)

was only partially supported. When the target group was Blacks, the model was significant in

predicting anger, $F(6,351) = 63.46$, $R^2 = .52$, $p < .001$. First, threat perceptions significantly

predicted anger towards Blacks, $b = 0.65$, CI 95% [0.57, 0.72]. Moreover, television

consumption significantly predicted anger toward Blacks indirectly through perceived threat, $b =$

0.03, CI 95% [0.005, 0.06]. Hence, H2(b) was supported. The model was also significant in

predicting anger toward Latinos, F (6, 369) = 92.80, R^2 = .60, p < .001. Threat perceptions

significantly predicted anger towards Latinos, b = 0.78, CI 95% [0.71, 0.85]. Moreover,

television consumption significantly predicted anger toward Latinos indirectly through perceived

threat, b = 0.01, CI 95% [0.002, 0.02]. H2(c) was supported.

The third hypothesis predicted an indirect effect of media consumption on anxiety

towards Asians (H3a), Blacks (H3b), and Latinos (H3c) through threat perceptions. When the

target group was Asians, the model significantly predicted the outcome, F (6,364) = 122.80, R^2 =

.67, p < .001. Specifically, perceived threat significantly predicted anxiety, b = 1.18, CI 95%

[1.09, 1.27]. But because television consumption did not predict perceived threat, H3(a) was only

partially supported. When the target minority group was Blacks, the model significantly

predicted anxiety, F (6, 351) = 157.22, R^2 = .73, p < .001. First, threat perceptions significantly

predicted anxiety, b = 0.72, CI 95% [0.67, 0.77]. Moreover, television consumption had an

indirect effect on anxiety toward Blacks via perceived threat, b = 0.04, CI 95% [0.006, 0.06].

Hence, H3(b) was supported. The model also significantly predicted anxiety towards Latinos, F

(6, 369) = 196.84, R^2 = .76, p < .001. Perceived threated predicted anxiety towards Latinos, b =

2.15, CI 95% [2.03, 2.28]. Moreover, television consumption had an indirect effect on anxiety

toward Latinos via perceived threat, b = 0.03, CI 95% [0.006, 0.06]. Therefore, H3(c) was

supported.

General Discussion

Content analyses have long documented that racial/ethnic minority groups are portrayed

in the media more negatively than their White counterparts (e.g., Mastro, 2009). Unsurprisingly,

research in this area also finds that consuming media that contain these negative images leads to

a slew of negative outcomes, including stereotyping and unfavorable intergroup judgments

(Atwell Seate, 2017; Mastro & Atwell Seate, 2012). Building upon this rich body of work, we merged insights from ITT and cultivation theory to test whether daily television consumption was associated with negative intergroup emotions, particularly anxiety and anger (Study 1) and whether threat perceptions were a driving factor in this relationship (Study 2). Overall, our results support the propositions derived from this integrative framework. By doing so, our work makes several important contributions to the literature. First, our study provides evidence that the media cultivate anxiety and anger towards non-dominant groups in the U.S. Thus, this work extends the cultivation perspective by including intergroup affective mechanisms, across non-dominant racial/ethnic groups in the U.S., as important second-order outcomes. Second, this research shows that threat perceptions are an important intervening variable between media exposure and intergroup emotions. And finally, the current work extends intergroup threat theory, by providing evidence that media exposure is an important antecedent variable to threat perceptions and subsequent affective reactions. We discuss each of these in more detail below.

The current study finds that daily television consumption is associated with increases in anxiety and anger towards non-dominant racial/ethnic groups in the U.S. On the surface this may not seem particularly meaningful, but research provides evidence that emotions are an important factor in guiding intergroup perceptions and behaviors. For example, Pettigrew and Tropp (2008) in their meta-analysis of the intergroup contact literature found that increases in intergroup anxiety led to more outgroup prejudice. Their meta-analysis also found that affective variables (i.e., empathy and anxiety) were stronger predictors of prejudice, compared to the cognitive mediator (i.e., knowledge). Intergroup emotions have also been linked to harmful behavioral intentions, including desire to attack outgroups and support for prejudicial legislative policies (see Smith & Mackie, 2010, for a review). Taken together, the above suggests that intergroup

emotions are an important second-order cultivation effect; thereby expanding our understanding of the role of media in intergroup relations.

Our findings indicate that threat perceptions are a consequential intervening variable of the relationship between media consumption and intergroup emotions. Specifically, for both Blacks and Latinos, perceptions of threat were an intervening variable between media consumption and feelings of anxiety and anger towards these groups. These findings are not only consistent with ITT, but complement other cultivation work that has shown that minorities are portrayed as threatening in the media (Mastro & Behm-Morawitz, 2005), and link media consumption to stereotypes related to both realistic and symbolic threats (e.g., Mastro et al., 2007). However, the model did not accurately predict feelings of anxiety and anger towards Asians.

Although the literature suggests that Asians are portrayed in the media in both realistically and symbolically threatening ways, our results did not provide evidence that television consumption indirectly influenced feelings of anger and anxiety towards this group via threat perceptions. However, in retrospect this is not entirely surprising. Research indicates that Asians are portrayed differently than Blacks and Latinos, though their portrayals can still be categorized as threatening. Specifically, this group is seen as a cultural other, not being able to assimilate into the dominant U.S. culture (cf. Zhang, 2010). On the surface this might not seem dissimilar from certain portrayals of Latinos, however, Latinos are also consistently portrayed as criminals, whereas Asians typically are not. Hence, it stands to reason that measures of threat associated with Asians should tap into notions of the "cultural other." Such measures would potentially produce results comparable to those found for Blacks and Latinos. However, this is only conjecture and should be tested in future research.

And finally, the current work extends intergroup threat theory by providing evidence that media consumption is an important antecedent variable to threat perceptions and subsequent intergroup emotions. ITT posits both distal and proximate factors in predicting threat perceptions, including things like group power, relative group size, and prior intergroup conflicts. Of course, these are important factors to consider when theorizing the causes of both realistic and symbolic threat perceptions. However, given the large amount of time spent with media (cf., Morgan et al., 2015), it is important to integrate the role of media in threat perceptions and related processes. This is not to say that the role of media in producing threat perceptions has gone unexamined (e.g., Atwell Seate & Mastro, 2015); instead, the current study underscores the continued need for scholars to explicitly integrate the media's influence into our theoretical understanding of intergroup threat and intergroup emotions. Hence, it seems reasonable to assert that media consumption is a consequential sociocultural factor in producing intergroup threat.

Limitations

Of course this study is not without its limitations. First, Study 1 had methodological limitations including a small sample and inadequate information about the race/ethnicity of the participants who self-identified as 'other', which could potentially attenuate the association between the variables. Moreover, Study 1 did not test the intervening role of threat perceptions in this process. Study 2 was conducted to address these limitations; however, it had constraints in its own right. Specifically, we used a single-item measure to test threat perceptions and anger. Although these items had high face validity, future research should use multi-items measures to tap into this construct. Relatedly, we did not include any indicators of threat that tapped into the idea of Asians being a cultural outsider. Finally, across both Study 1 and Study 2, the use of an

overall media consumption measure may have constrained our ability to uncover effects for all

groups examined in this context. For example, it is possible that the small number of Asian

characters found on television (e.g., Tukachinsky, Mastro, & Yarchi, 2015) coupled with the

potentially greater variability in TV representations of this group (given relatively few

quantitative content analytic insights), meant that some viewers were exposed to few/no Asian

characters during their typical TV exposure, or a wider array of portrayals than those associated

with other (even more dramatically underrepresented) groups (e.g., Latinos). Accordingly, it is

possible that a more sensitive assessment of consumption, including evaluations of the content

itself (e.g., Slater, 2004; 2016) is necessary in such contexts. However, such procedures are

themselves limiting (as well as resource intensive) and may even introduce additional error (e.g.,

content coding) into the already imperfect self-report process. Finally, both studies relied on

convenience samples which limit the ability to generalize these results.

Conclusions

Integrating insights from cultivation theory and intergroup threat theory, the current study

tested whether media consumption was associated with feelings of anxiety and anger towards

Blacks, Latinos, and Asians. Study 1 found a link between media consumption and negative

intergroup emotions toward these groups. Building on the findings from Study 1, Study 2 both

replicated these results and extended this work by showing that threat perceptions were a driving

factor in the relationship between media consumption and negative intergroup emotions.

However, media consumption did not indirectly influence negative intergroup emotions toward

Asians. Overall, our work provides further evidence that, in the context of current depictions of

race/ethnicity, the media have a measurable and negative impact on intergroup relations.

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Table 1

Descriptive Statistics Segmented by Each Racial Category (Study 1)

Variables	Non-Blacks (N = 248)	Non-Latinos (N = 224)	Non-Asians (N = 240)
Quantity of Black Contact	M = 2.66 (.91)		
Quality of Black Contact	M = 5.16 (1.56)		
Quantity of Latino Contact		M = 3.03 (.92)	
Quality of Latino Contact		M = 5.22 (1.53)	
Quantity of Asian Contact			M = 2.76 (.93)
Quality of Asian Contact			M = 5.27 (1.52)
Anxiety towards Blacks (α = .92)	M = 2.41 (1.37)		
Anger towards Blacks	M = 1.87 (1.43)		
Anxiety towards Latinos (α = .91)		M = 2.05 (1.18)	
Anger towards Latinos		M = 1.84 (1.38)	
Anxiety towards Asians (α = .91)			M = 1.73 (1.16)
Anger towards Asians			M = 1.57 (1.15)
Daily Television Consumption	M = 9.06 (2.73)	M = 9.09 (2.72)	M = 9.14 (2.78)

Note: The means and standard deviations for the transformed dependent variables are presented in their original form for clarity.

Table 2

Media Consumption and Discrete Emotions towards Blacks among Non-Blacks: Partial and

Zero-Order Correlations for Study 1 (N = 248)

Variables	1	2	3
1. Anger towards Blacks	-	.67**	.09
2. Anxiety towards Blacks	.61**	-	.17**
3. Daily Television	.09	.18**	-
Consumption			

Note: $+ p = .05 * p < .05 ** p < .01$, one-tailed. The partial correlations are below the diagonal and the zero-order correlations are above the diagonal. The partial correlations control for race (White/Non-White), sex, age, quantity of interpersonal contact with Blacks, and quality of interpersonal contact with Blacks.

Table 3

Media Consumption and Discrete Emotions towards Latinos among Non-Latinos: Partial and

Zero-Order Correlations for Study 1 (N = 224)

Variables	1	2	3
1. Anger towards Latinos	-	.73**	.10
2. Anxiety towards Latinos	.73**	-	.16**
3. Daily Television	.11+	.15*	-
Consumption			

Note: + p = .05 * p < .05 ** p < .01, one-tailed. The partial correlations are below the diagonal and the zero-order correlations are above the diagonal. The partial correlations control for race (White/Non-White), sex, age, quantity of interpersonal contact with Latinos, and quality of interpersonal contact with Latinos.

Table 4

Media Consumption and Discrete Emotions towards Asians among Non-Asians: Partial and

Zero-Order Correlations for Study1 (N = 240)

Variables	1	2	3
1. Anger towards Asians	-	.68**	.10
2. Anxiety towards Asians	.63**	-	.13*
3. Daily Television Consumption	.11*	.14*	-

Note: $+ p = .05$ * $p < .05$ ** $p < .01$, one-tailed. The partial correlations are below the diagonal and the zero-order correlations are above the diagonal. The partial correlations control for race (White/Non-White), sex, age, quantity of interpersonal contact with Asians, and quality of interpersonal contact with Asians.

Table 5

Descriptive Statistics Segmented by Each Racial Category (Study 2)

Variables	Non-Blacks ($N = 358$)	Non-Latinos ($N = 376$)	Non-Asians ($N = 371$)
Quantity of Black Contact	$M = 1.85$ (.61)		
Quality of Black Contact	$M = 2.95$ (.86)		
Quantity of Latino Contact		$M = 1.85$ (.65)	
Quality of Latino Contact		$M = 2.82$ (.93)	
Quantity of Asian Contact			$M = 1.62$ (.66)
Quality of Asian Contact			$M = 2.55$ (1.02)
Anxiety towards Blacks ($\alpha = .92$)	$M = 2.76$ (1.55)		
Anger towards Blacks	$M = 2.50$ (1.63)		
Anxiety towards Latinos ($\alpha = .91$)		$M = 2.31$ (1.36)	
Anger towards Latinos		$M = 2.24$ (1.54)	
Anxiety towards Asians ($\alpha = .91$)			$M = 1.99$ (1.19)
Anger towards Asians			$M = 1.98$ (1.37)
Daily Television Consumption	$M = 10.16$ (4.32)	$M = 10.40$ (4.50)	$M = 10.49$ (4.44)

Note: The means and standard deviations for the transformed dependent variables were presented in their original form for clarity.

Table 6

Coefficients of Direct Effects and Indirect Effects for each Racial Group

	Asians	Blacks	Latinos
TV→Perceived Threat	0.004	0.05*	0.02*
Perceived Threat→Anger	1.10***	0.65***	0.78***
TV→Anger (Direct)	0.007	0.03*	0.002
TV→Anger (Indirect)	0.005	0.03*	0.01*
Perceived Threat→Anxiety	1.18***	0.72***	2.15***
TV→Anxiety (Direct)	0.006	0.02	-0.004
TV→Anxiety (Indirect)	0.005	0.04*	0.03*

Note. * $p < .05$ *** $p < .001$ The models above control for race, sex, age, quantity of intergroup contact, and quality of intergroup contact.

Footnotes

[1] We transformed the data using the single-band transformation formula proposed by Fink (2009): $Y^* = (Y + k)^{l}$. Specifically, for anger towards Latinos, anger towards Blacks, and anxiety towards Asians, we used the transformation: $Y^* = (Y-.99)^{50}$. We used the transformation: $Y^* = [(Y-.99)-^{50}]*-1$ for anger towards Asians.

[2] We transformed the data using the single-band transformation formula proposed by Fink (2009). Specifically, for feeling of threat towards Latinos, anger towards Asians, anger towards Latinos, anxiety-related emotions towards Asians, and anxiety-related emotions towards Latinos, we used the transformation $Y^* = (Y - .50)^{50}$. For feeling of threat towards Asians, we used the transformation $Y^* = (Y - .50)^{33}$.