Lifetime Television Use Influences Racial Prejudice Through Cultivating Implicit Norms: Differed Effects Across Three Life Stages

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Abstract

The present study investigated the role of lifetime television (TV) use and TV use across life stages (i.e., childhood, adolescence, adulthood) on racial attitudes. In a young adult sample (N = 268), lifetime TV use was not associated with racial attitudes either directly or indirectly. However, when testing the effects of TV use across specific life stages, TV use during childhood, adolescence, and adulthood were each indirectly associated with current racial attitudes through implicitly measured norms and motivation to avoid racism. Overall, childhood and adulthood TV use was associated with stronger racism whereas adolescence TV use was associated with weaker racism. Directions for future research are discussed.

Keywords: childhood TV use, adolescence TV use, adulthood TV use, implicitly measured norms, racial attitudes

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Cultivation theory maintains that media cultivates our social reality—what we watch influences how we view the world, especially for heavy viewers (Gerbner et al., 2002; Morgan & Shanahan, 2010). Research exploring racial attitudes from a cultivation perspective tends to focus on the effects of specific genres of programming, such as crime news (Dixon, 2007; Northup, 2010), sports (Kobach & Potter, 2013), or situation comedies (Busselle & Crandall, 2002), on domain-specific beliefs. How and when these judgments are cultivated, however, remains largely understudied, as does the influence of overall television use throughout the lifespan. The present study situated normative perceptions of the prevalence of racial stereotype beliefs as a potential precursor to later racial attitudes.

Cultivation Throughout Life Stages

Cultivation theory was originally conceptualized as a Gestalt approach—the whole is greater than the sum of its parts. Thus, the interest was in exposure to the entire media (originally, television) milieu across a person's lifespan (Roskos-Ewoldsen et al., 2004). Previous research on racial attitudes using this approach has demonstrated a relationship between lifetime media use and interracial evaluation (Atwell Seate et al., 2018; Yao et al., 2022). For example, one study found an association between lifetime television (TV) use and emotions such as anger and anxiety toward racial outgroups (Atwell Seate et al., 2018). However, there have been more recent calls for treating cultivation as a paradigm, with arguments for examining content-specific effects and other contextual variables within the broader scope of the theory. Further, there has been a move to reconceptualize cultivation theory in terms of the

psychological processes that underlie cultivation effects (Ewoldsen, 2017; Ewoldsen & Rhodes, 2012).

The present study offers the relatively novel context of life stages as one way to examine cultivation from this paradigmatic perspective. Research within anthropology and psychology suggests that people's understanding of their culture forms prior to high school (Roskos-Ewoldsen et al., 2004). Further, research finds that young children are particularly sensitive to racial cues when developing their racial attitudes (Castelli et al., 2008). For example, Yao et al. (2022) found that childhood, but not adolescence nor adulthood, social media use was related to more negative current racial attitudes toward Black people through an increase in intergroup inequity beliefs. Given these findings, the present research investigated the effects of lifetime TV use, as well as TV use across three specific life stages (i.e., childhood, adolescence, adulthood) on racial attitudes. Attitudes toward Black Americans were specifically explored due to the longstanding structural, institutional, and interpersonal racism observed in the U.S. and in television media (Sonnett et al., 2015). Furthermore, a recent meta-analysis of cultivation theory research over 50 years found a small, but consistent effect in the context of racial attitudes, of which most focused on Black Americans (Hermann et al., 2021). Thus, Black individuals constitute a relevant and important population for this study. The existing literature has discussed the relationship between TV use and racial attitudes, but less work has considered how lifetime TV use, as well as TV use at specific life stages, may uniquely contribute to these beliefs. Thus, the following research question was posed:

> RQ1: Will (a) lifetime TV use and (b) TV use across specific life stages (i.e., childhood, adolescence, adulthood) be associated with current racial attitudes toward Black individuals?

Norm Activation

Although cultivation theory did not originally emphasize the mechanisms behind the cultivation effect, several extensions and modifications to the original model have since been put forth (Shrum, 2017). Social norms have emerged as a particular variable of interest due to cultivation theory's central hypothesis that TV shapes viewers' perceptions of the social world, such as how common a behavior is, which is a specific type of normative perception (Shanahan & Morgan, 1999). Indeed, social norms, defined as the unwritten, yet socially agreed upon rules of society (Rhodes et al., 2020), can take various forms, including perceptions of how prevalent a behavior is or how (dis)approving others would be if the behavior was performed. Important to the present research is that social norms can be measured implicitly by examining their accessibility (Rhodes & Ewoldsen, 2009). This is a particularly important distinction to understand in the context of media use because media exposure may be more likely to influence the accessibility of people's norm than their attitudes (Spencer et al., 2010). This makes sense, as injunctive norms are communicated by observing people's behavior and how other people respond to that behavior (Cialdini et al., 1991).

According to the motivation and opportunity as determinants (MODE) model (Ewoldsen et al., 2015; Fazio, 1990), behavior may result from deliberate or spontaneous cognitive processing, depending on the person's motivation and ability. When a behavior is spontaneously enacted, the accessibility of information is likely to guide behavior (Rhodes & Ewoldsen, 2009; Rhodes et al., 2014). Given explicit contemporary norms to avoid discriminatory attitudes and behaviors (Dovidio & Gaertner, 1991; Rutland et al., 2005), investigating people's implicit social norms (i.e., norms most readily active in one's memory) may provide deeper insights into people's prejudiced behaviors, because when people engage in spontaneous behaviors, the

accessible norm is likely to override the explicit norm to avoid racism. Thus, the present study considers how TV use may relate to implicit social norms regarding outgroups by asking the following question:

> RQ2: Will (a) lifetime TV use and (b) TV use across specific life stages (i.e., childhood, adolescence, adulthood) be associated with implicitly measured norm activation?

Motivation to Reduce Racial Prejudice

The last area of interest in the present study is how lifetime TV use and social norms may motivate or dissuade a person to be prejudiced. People are generally aware of cultural stereotypes due to their depiction in the news and media (Devine et al., 2002). Television has been found as a key source of stereotype knowledge (Crandall et al., 2002; Schneider, 2004; Tan et al., 2010). Consequently, even if a person does not intend to act racially prejudiced, repeated exposure to biased and stereotypical information is likely to influence their behavior towards outgroup members, as this information is accessible from memory (Devine et al., 2002). To counteract internalized prejudicial beliefs, people must engage in some form of prejudice reduction or racism suppression, which can be either internally or externally motivated (Devine et al., 2002; Rutland et al., 2005). If internally motivated, a moral belief or value likely guides the process, such as the belief that everyone deserves to be treated equally regardless of race (i.e., an egalitarian belief). If externally motivated, the perceived social consequences of the behavior, such as being labeled racist, likely dictates prejudice suppression. Research has highlighted both forms of motivation as important, but distinct, predictors of whether a person will attempt to act with or without prejudice (Devine et al., 2002; Plant & Devine, 1998).

Combining literature on cultivation theory, social norms, and motivation, we expect implicit norms to be associated with motivations to avoid prejudice per the tenants of the MODE

model. However, whether this norm activation will be more strongly associated with internal or external motivations remains an open question. Additionally, the MODE model predicts that explicitly measured attitudes are a result of spontaneously activated attitudes plus the effect of motivation. This suggests that the motivation to control racism should predict explicitly measured attitudes toward Black individuals. Specifically, previous research has found that stronger internal motivation to control racism was associated with weaker explicitly measured racial prejudice, whereas stronger external motivation to control racism was associated with stronger explicitly measured racial prejudice (Devine et al., 2002). Thus, we offer the following research question and hypothesis (see Figure 1 for conceptual model):

RQ3: Will implicitly measured norm activation be associated with (a) internal and (b) external motivation?

H1: Motivation to control racism will be associated with explicitly measured current attitudes toward Black individuals, such that stronger internal motivation will be associated with (a) stronger positive and (b) weaker negative attitudes toward Black individuals, whereas stronger external motivation will be associated with (c) weaker positive and (d) stronger negative attitudes toward Black individuals.

Method

Participants

Undergraduate students (n = 291) were recruited from a large state university in the midwest United States using the SONA system (i.e., a research management system that allows undergraduate students to sign up for available research opportunities in exchange for course credit). Because the current study was concerned with racial attitudes toward Black individuals, Black participants skipped all questions related to judgments toward their racial group (n = 23,

5%), resulting in a final sample of 268. The final sample consisted of men (n = 83, 31%) and women (n = 185, 69%) between 18 to 38 years of age (M = 20.06, SD = 1.86). Participants were predominantly White (n = 175, 65%), followed by Asian or Pacific Islander (n = 77, 29%) and something else (n = 16, 6%).

Procedure

A two-part survey was conducted in a counterbalanced order at least 24 hours apart to reduce participant suspicion. The first part of the survey was conducted in person and contained the implicit norm measure and media use questions (n = 297). The second part of the survey was conducted online and contained the motivation and attitude questions. This portion was open to students beyond those who had completed the first part, resulting in a larger sample (n = 507). Only participants who completed both parts of the survey (n = 291) were included in analysis.

Measures

Implicit Measure of Norms

The Normative Implicit Association Test (Yoshida et al., 2012) was administered using DirectRT, and asked participants to categorize photographs of Black and White individuals by "Black/White" and "People Like/People Dislike." The measure was scored as outlined in previous work (Ellithorpe et al., 2015; Olson & Fazio, 2004). Outliers, defined as three standard deviations from the mean, were recoded as the value of three standard deviations from the mean (3835.34 milliseconds). Reaction times were transformed using the D-statistic (Greenwald et al., 2003), with larger score means indicating more accessible prejudiced social norms (M = 225.53, SD = 225.32, range from -543.62 to 1199.29).

Lifetime TV Use

Lifetime TV use was measured with the Lifetime Television Exposure Scale (Riddle, 2010). Participants retrospectively reported how often (0 = *almost never*, 10 = *almost always*) they watched TV during the following life stages: childhood (i.e., "think back to your elementary school years," $M = 5.09$, $SD = 2.21$), adolescence (i.e., "think back to your high school years," $M = 4.73$, $SD = 2.14$), and adulthood (i.e., "think about your current levels of exposure to television;" $M = 4.63$, $SD = 2.22$). For each life stage, participants reported their television use patterns on weekdays and weekends through ten questions (e.g., "How often did you watch television in the morning on weekdays?"). Using the formula provided by Riddle (2010), stages were turned into a weighted average of lifetime use index per the duration of each considered life stage[1] ($M = 4.90$, $SD = 1.68$).

Motivation to Control Prejudiced Reactions

The Internal and External Motivation to Respond without Prejudice Scale (Plant & Devine, 1998) has two subscales. One subscale assesses internally-driven motivation to avoid prejudice (e.g., "I feel guilty when I have a negative thought or feeling about a Black person," $M = 8.65$, $SD = 1.76$, $\alpha = .82$), and the second subscale assesses external restraint of prejudiced reactions (e.g., "In today's society it is important that one not be perceived as prejudiced in any manner," $M = 5.93$, $SD = 2.36$, $\alpha = .86$). Items were assessed on a 10-point scale (0 = *strongly disagree*, 10 = *strongly agree*).

Current Attitudes toward Black People

The Positive and Negative Attitudes toward Black People Scales were used to measure participants' current attitudes toward the target group (Katz & Hass, 1988). Participants indicated

[1] Cronbach's α is not available for this measure as it is a weighted index.

their agreement (0 = *strongly disagree*, 10 = *strongly agree*) with ten positive attitude (e.g., "Black people do not have the same employment opportunities that White people do") and ten negative attitude (e.g., "Black people should take the jobs that are available and then work their way up to better jobs.") statements. A positive attitude index was formed by averaging responses to the positive attitude statements (M = 5.79, SD = 1.63, α = .83). A negative attitude index was formed by averaging responses to the negative statements (M = 3.47, SD = 1.66, α = .84).

Covariates

Political orientation was measured using a single item asking participants, "What political orientation do you most identify with?" on a 1 (*extremely liberal*) to 7 (*extremely conservative*) scale (M = 3.50, SD = 1.39). Identification with characters (e.g., "I tend to understand the reasons why the main characters in television programs do what they do") was assessed with Cohen's (2001) identification measure (M = 7.06, SD = 1.85, α=.67), which uses a 11-point scale (0 = *strongly disagree*, 10 = *strongly agree*).

Results

Structural equation modeling (SEM) with the Lavaan package (Version 0.6-12; Rosseel, 2012) in R (Version 4.2.1) was used to analyze the data. Two models were tested: one with combined lifetime TV use as the exogenous variable, and one with the three life stages' TV use as the exogenous variables (see Figure 1). Because direct and indirect effects were of particular interest, path analysis was conducted with a saturated model and therefore, no model fit indices are available to report. Full information maximum likelihood was used to address missing data within model building. Coefficients reported are unstandardized and bias-corrected confidence intervals were produced with 5000 bootstrapped samples. See Tables 1 and 2 for a summary of direct and indirect effects.

RQ1a asked whether lifetime TV use is associated with racial attitudes toward Black individuals. In the present data, neither positive nor negative attitudes toward Black people were directly predicted by combined lifetime TV use. Thus, we concluded that lifetime TV use was not associated with attitudes toward Black individuals. RQ1b further asked whether TV use at any of the three specific life stages (i.e., childhood, adolescence, adulthood) is associated with racial attitudes toward Black individuals. The results showed no significant relationship between TV use at any of the life stages and positive or negative attitudes toward Black individuals.

RQ2a asked whether lifetime TV use is associated with implicitly measured norm activation. The results indicated that implicitly measured norms were not significantly predicted by combined lifetime TV use. However, when looking at each life stage separately, childhood and adulthood TV use predicted more accessible prejudicial norms, whereas adolescence TV use predicted less accessible prejudicial norms. These results indicate that retrospectively reported TV use in specific life stages is associated with implicitly measured social norms (RQ2b).

RQ3 sought to investigate whether implicitly measured norms were associated with (a) internal and (b) external motivation. In both models, only internal motivation was significantly and negatively predicted by implicitly measured norms. Participants who showed stronger prejudicial social norms reported weaker internal motivation to control racism.

H1 predicted an association between motivation to control racism and explicitly measured attitudes toward Black individuals. In both models, H1a and H1b were supported, such that internal motivation to control racism toward Black people predicted stronger positive attitudes and weaker negative attitudes. H1c was not supported, as stronger external motivation to control motivation was not significantly associated with positive attitudes toward Black

individuals. However, H1d was supported, as participants with stronger external motivation to control racism reported stronger negative attitudes toward Black individuals.

To test whether lifetime TV use may be indirectly associated with racial attitude toward Black people, indirect path results are also reported (see Table 2). The results indicated that combined lifetime TV use did not predict positive or negative attitudes indirectly. However, each of the three life stages indirectly predicted positive attitudes toward Black people, but in different directions. Childhood and adulthood TV use were both associated with stronger prejudiced norms, which in turn was associated with weaker internal motivation to avoid racism and less positive attitudes toward Black people. Adolescence TV use, on the other hand, was associated with less accessible prejudiced norms, which in turn was associated with stronger internal motivation to avoid racism and more positive attitudes toward Black people.

Discussion

Cultivation theory emphasizes the importance of studying the effects of media messages on perceptions of reality, such as attitudes toward racial outgroups, through long-term exposure to media content (Gerbner et al., 2002). Thus, in the present study, we explored lifetime TV use as a predictor of current attitudes toward Black people, through implicitly measured social norms and motivation to avoid racism. We also tested the possibility of varied effects of TV use across three different life stages (i.e., childhood, adolescence, and adulthood) on current attitudes toward Black people. Overall, lifetime TV use was not associated with attitudes toward Black people either directly or indirectly. However, all three life stages indirectly predicted outgroup attitudes, but in different directions.

The pattern of the results may indicate the need for stronger anti-racist and media literacy campaigns for children and adults. These findings are consistent with work in anthropology and

psychology on the developmental nature of individuals learning to understand their culture (Roskos-Ewoldsen et al., 2004) and the development of racial beliefs (Castelli et al., 2008). Adolescence has long been associated with rebellious and counter-cultural behavior as teenagers explore their individuality and experiment with differentiating themselves from their parents (Nelson et al., 2005). For adolescents, this may take form in how they consider race. Edmonds and Killen (2009), for example, found that adolescents who perceived their parents to have negative attitudes toward inter-racial relationships were more likely to exert personal choice over the issue (i.e., rebel against their parents explicitly) than those who perceived their parents to have positive attitudes. It is possible, then, that even if adolescents were exposed to racial bias and stereotypes in the media, they were more likely to reject these messages as an act of social reorientation than children or adults, who are more likely to abide by social norms and culturally dominant thinking (Greenfield et al., 2002).

The present results highlight the importance for future cultivation research to continue exploring the specific impact of different life stages. The results for TV use during childhood are consistent with previous research regarding when people learn how to understand their culture (Roskos-Ewoldsen et al., 2004) and form race-related beliefs (Castelli et al., 2008). The findings regarding the relationship between adult media use and implicit racist norms likely reflects the dynamic relationship long hypothesized by cultivation theory between media use and social beliefs (Lang & Ewoldsen, 2010). Indeed, research has demonstrated that implicit processes bias how media stories are interpreted, such that the stories reinforce existing racist attitudes. Thus, the findings regarding adulthood TV use may reflect how implicit processes operate to maintain a person’s existing beliefs (Ewoldsen et al., 2015).

Theoretically, the findings suggest that cultivation research should consider not just attitudes, but also norms, as outcomes of cultivation. Descriptive norms are essentially prevalence estimates of similar others' attitudes, beliefs, and behaviors (Rimal, 2008), and such prevalence estimates align with the theoretical component of first order cultivation effects (Shrum, 1995). Additionally, although cultivation research has traditionally considered all media exposure across the lifespan to be relatively equal, the results from the present study suggest this may not always be the case. We found different directional relationships for exposure at different life stages. Future cultivation research should consider what content differences may exist in programming for children, adolescents, and adults that might explain these relationships.

Limitations and Future Research

The current study has limitations, most notably the use of cross-sectional data from a student sample. This choice was made due to the exploratory nature of the study, funding limitations, and the common use of nonprobability student samples in the field (Erba et al., 2018). Although we recognize that the current analysis cannot demonstrate causality, cultivation theory has never assumed a linear causal relationship between media use and perceptions (Lang & Ewoldsen, 2010). Our results highlight media use across life stages as an important consideration when examining racial prejudice.

Another potential limitation lies in the retrospective report of TV viewing early in life (e.g., childhood). It is possible that participants may not have accurately remembered their TV viewing habits when they were much younger. However, several studies have validated the accuracy of adults' retrospective reports of their TV viewing earlier in life (Potts & Seger, 2013; Seger & Potts, 2017). In one study, young adults retrospectively reported characters and plots of specific TV programs and their viewing patterns from several years ago, which was found to

corroborate with the actual content and airing time of the tested programs (Potts & Seger, 2013). That said, future cultivation research should adapt longitudinal methods to explicitly test how different stages across the lifespan influence viewers' current intergroup attitudes. Research using novel methods (e.g., electronic trackers or adult supervision for participants who are children) to directly investigate TV viewers' interracial prejudice at different developmental periods is also needed to determine whether prejudice is formed during these specific life stages.

Relatedly, the homogeneous age of the sample may indicate the observed effects are due to specific TV content released during particular periods (in this case, the 1990s and 2000s) rather than our purported model. In other words, it may not just be how much, but also *what*, participants watched, as it is possible this sample may have been exposed to similar TV content while growing up. Thus, we recommend interpreting the generalizability of the present findings with caution. Future research may consider modeling TV use and TV content together to predict intergroup attitudes at a certain life stage. Finally, our research focused on attitudes toward Black individuals; other research may find different relationships in other racial and ethnic contexts.

Conclusion

The findings of the present study provide insight on the influence of lifetime TV use on interracial prejudice through implicitly measured norms. Overall, our results highlight the importance of studying how media use cultivates prejudice by investigating the effects of TV use across different life stages.

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Figure 1

Conceptual Model of the Relationship between LifetimeTV Use, Implicitly Measured Norms, Motivation, and Attitudes toward Black People

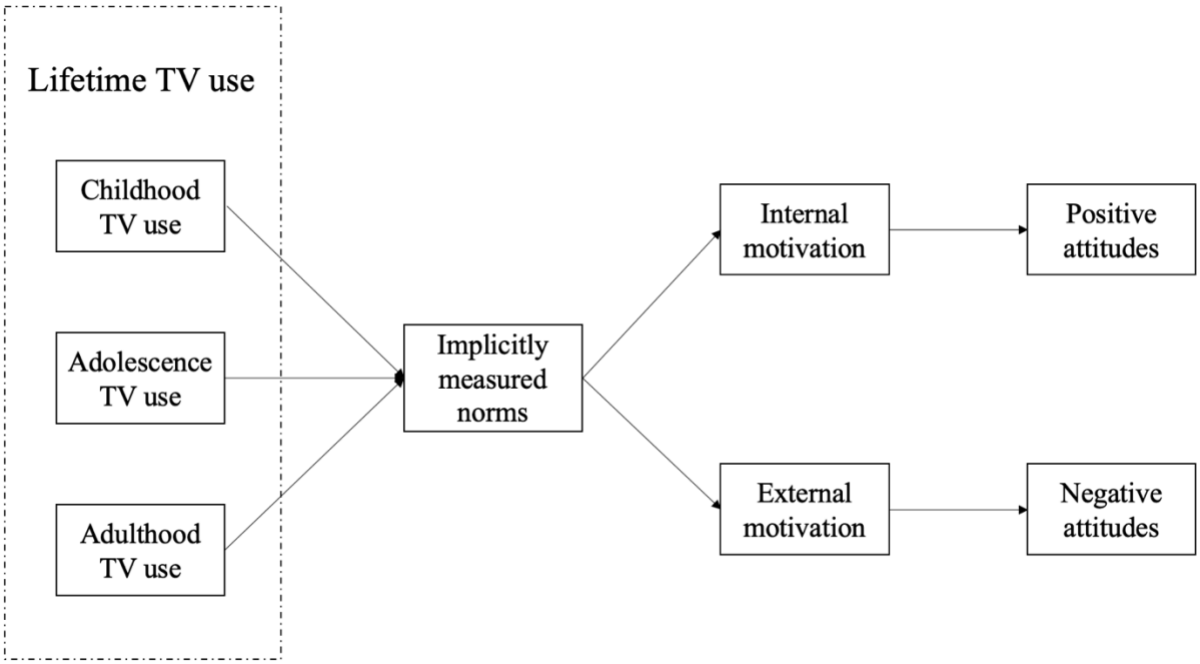

Table 1

Summary of Direct Effects

	Implicitly measured norms	Internal motivation	External motivation	Positive attitudes	Negative attitudes
	Model with Lifetime TV Use as Exogenous Variable				
Lifetime TV use	10.09[-7.83, 28.07]	.08[-.05, .20]	-.01[-.20, .20]	-.02[-.13, .09]	.04[-.09, .15]
Implicitly measured norms	—	**-.001[-.002, -.0001]**	-.00[-.00, .00]	.00[-.00, .00]	.00[-.00, .00]
Internal motivation	—	—	—	**.23[.14, .32]**	**-.42[-.52, .30]**
External motivation	—	—	—	-.02[-.10, .06]	**.16[.07, .25]**
Identification with characters	14.09[-.4.16, 32.30]	**.32[.20, .42]**	-.03[-.19, .12]	**.11[.003, .22]**	-.003[-.11, .11]
Political orientation	**22.05[3.32, 40.89]**	**-.21[-.34, -.07]**	.10[-.10, .32]	**-.41[-.51, -.28]**	**.20[.06, .34]**
	Model with Three Life Stages' TV Use as Exogenous Variables				
Childhood TV use	**17.76[2.31, 33.64]**	-.01[-.11, .09]	-.01[-.15, .15]	-.03[-.12, .07]	.01[-.08, .10]
Adolescence TV use	**-22.68[-42.96, -3.10]**	.06[-.06, .17]	-.00[-.19, .18]	.02[-.09, .13]	.04[-.06, .16]
Adulthood TV use	**17.90[2.82, 32.52]**	.04[-.07, .15]	.01[-.14, .18]	-.02[-.11, .07]	-.03[-.13, .06]
Implicitly measured norms	—	**-.001[-.002, -.0001]**	-.00[-.00, .00]	.00[-.00, .00]	.00[-.00, .00]
Internal motivation	—	—	—	**.23[.13, .32]**	**-.41[-.52, -.30]**
External motivation	—	—	—	-.02[-.10, .06]	**.16[.07, .25]**
Identification with characters	13.98[-4.50, 32.45]	**-.21[-.35, -.07]**	-.03[-.19, .12]	.11[-.00, .22]	**.20[.06, .34]**
Political orientation	**21.72[2.96, 39.76]**	**.31[.20, .42]**	.10[-.10, .32]	**-.41[-.54, -.28]**	-.00[-.11, .11]

Note. The 95% confidence interval (CI) is provided in the square bracket next to each coefficient. Coefficients with CIs that do not cross zero are bolded.

Table 2

Summary of Indirect Effects

	Coefficients
Model with Lifetime TV Use as Exogenous Variable	
Lifetime TV use→Implicitly measured norm→Internal motivation→Positive attitudes	-.00[-.01, .01]
Lifetime TV use→Implicitly measured norm→External motivation→Negative attitudes	-.00[-.003, .002]
Lifetime TV use→Implicitly measured norm→Internal motivation	-.00[-.04, .004]
Lifetime TV use→Implicitly measured norm→External motivation	.01[-.02, .01]
Model with Three Life Stages' TV Use as Exogenous Variables	
Childhood TV use→Implicitly measured norm→Internal motivation→Positive attitudes	**-.003[-.01, -.00]**
Adolescence TV use→Implicitly measured norm→Internal motivation→Positive attitudes	**.004[.00, .02]**
Adulthood TV use→Implicitly measured norm→Internal motivation→Positive attitudes	**-.004[-.01, -.00]**
Childhood TV use→Implicitly measured norm→External motivation→Negative attitudes	-.00[-.00, .00]
Adolescence TV use→Implicitly measured norm→External motivation→Negative attitudes	.00[-.00, .01]
Adulthood TV use→Implicitly measured norm→External motivation→Negative attitudes	-.00[-.00, .00]
Childhood TV use→Implicitly measured norm→Internal motivation	**-.02[-.05, -.001]**
Adolescence TV use→Implicitly measured norm→Internal motivation	**.02[.002, .06]**
Adulthood TV use→ Implicitly measured norm→Internal motivation	**-.02[-.05, -.002]**
Childhood TV use→Implicitly measured norm→External motivation	-.00[-.03, .02]
Adolescence TV use→Implicitly measured norm→External motivation	.00[-.02, .03]
Adulthood TV use→ Implicitly measured norm→External motivation	-.00[-.03, .02]

Note. The 95% confidence interval (CI) is provided in the square bracket next to each coefficient. Coefficients with CIs that do not cross zero are bolded.