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Experimental insights into the socio-cognitive effects of viewing materialistic media messages on welfare support

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Experimental insights into the socio-cognitive effects of viewing materialistic media messages on welfare support

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ABSTRACT
This experimental study draws on cultivation, dispositional materialism, and schema theories to test the effects of commercial media viewing on material values and welfare support. Data were collected from a cross-sectional British sample using a web-survey priming methodology (N = 487, ages 18-49). Findings suggest that 1) materialism and anti-welfare orientations operate through associated and contiguous cognitive-affective mechanisms that can be triggered by momentary exposure to materialistic media messages (MMMs). 2) Heavy consumers of television shows that valorize and regularly portray wealth, fame, and luxury are significantly more materialistic and anti-welfare than lighter consumers. 3) Chronic attention to MMMs may indirectly increase support for the governmental enactment of punitive welfare policies via cultivating self-enhancement related schemas, which when instantiated, decrease dispositional orientations towards empathy, altruism, and communality. This research contributes nuanced theoretical and experimental insights into how ubiquitous commercial media potentially undermine prosocial development and societal well-being.

Keywords: Cultivation, Priming, Media Effects, Consumer Psychology
Materialism refers to a set of values and attitudes that orient individuals to valorize, seek, and be preoccupied with acquiring wealth, possessions, prestige, and status (Ditmar, Bond, Hurst, & Kasser, 2014; Kasser, 2016). In advanced market societies, cultural representations and endorsements of materialism, such as the promotion and glorification of fame, fortune, and conspicuous consumption, are particularly endemic in and promulgated by commercial media (Ashikali & Ditmar, 2012; Lewallen, Miller, & Behm-Morawitz, 2016). Indeed, the ubiquity of materialistic media messages (MMMs) is beneficial if not critical to the GDP growth of contemporary capitalist economies, given that this ubiquity helps stimulate consumption (Klein, 2000; McGuigan, 2010).

Yet irrespective of the positive economic contributions of MMMs, frequent exposure to them is being increasingly connected to several troubling trends and adverse effects. For example, UK psychology studies have found that internalizing the media-culture ideals of materialism increases body dissatisfaction in women (Ashikali & Ditmar, 2012), and decreases well-being in children (Easterbrooke, Wright, Dittmar, & Banerjee, 2014). In a similar vein, US media studies show that heavy consumption of MMMs is related to increased levels of stress, life dissatisfaction, and anxiety (Shrum, Lee, Burroughs, & Rindfleisch 2011; Yang, Ramasubramanian, & Oliver, 2008).

However, research on the dynamics between commercial media consumption and materialism is still in its infancy and has been predominantly correlational (Shrum et al., 2011). To date, only a handful of studies have directly examined the negative effects of exposure to MMMs, and these have only focused on the micro-level individual harms that said exposure exacerbates (e.g., see Ashikali & Ditmar, 2012). Resultantly, the potential broader sociopolitical harms or implications that may follow from commercial media’s regular activation of materialism remain under-explored (Kasser, 2016). To help fill this gap, the present experimental UK study tested interrelations among commercial media exposure, materialism, and welfare support.

The article continues with a review of the media-communication, psychology, and cognitive science literature that informed the theoretical framework for this study. The specific connections to UK welfare support are then drawn out, followed by sections on this study’s methods, findings, contributions, and limitations.

**CULTIVATING & OVERDEVELOPING MATERIALISM**

According to recent cognitive cultivation models, instances of media consumption can prime and heighten the accessibility of relevant internal constructs - which can then be gradually influenced by what viewers are distinctly watching (Coenen & Van Den Bulck, 2017; Shrum et al., 2011). Chronic attention to prevalent and conceptually congruent media representations, therefore, increases the probability of salient, recurring, and affective aspects of these representations significantly inflecting a viewer’s mnemonic structures and concomitant conceptions of reality (Morgan & Shanahan, 2010; Nabi & Riddle, 2008). Following this theorizing, a growing body of cultivation research argues that heavy television consumption cultivates materialism, because television is rife with content that explicitly links wealth, fame, and luxury to happiness, success, and status (Good, 2007; Lewallen et al., 2016; Opree & Kühne, 2016; Yang et al., 2008). As this research so far consists of cross-sectional studies and a couple of experiments, it can only provide a tentative account of how materialism cultivation
-a longitudinal phenomenon, actually occurs. Despite this observational limitation, the findings from these studies lend consistent evidence for the following formulation. The cultivation of materialistic values and attitudes is, in effect, a linear function of frequent exposure to positive media portrayals of materialism, which foments and strengthens memory associations that are valenced in line with those portrayals (e.g., see Lewallen et al., 2016; Shrum et al., 2005; Shrum et al., 2011).1

Furthermore, parallel bodies of psychology research on dispositional materialism2 shed additional light on the potential behavioral and developmental effects that may result from commercial media’s cultivation of materialism. For example, experimental studies have found that even momentary exposure to materialism-related images (e.g., pictures of money) and language (e.g., words such as ‘buy’ and ‘expensive’), can simultaneously potentiate selfishness and inhibit prosociality (Bauer, Wilkie, Kim, & Bodenhausen, 2012; Caruso, Vohs, Baxter, & Waytz, 2013). Moreover, US and UK developmental studies have linked the rise in the dissemination of and consequent exposure to MMMs over the past 30 years, to higher levels of self-interestedness and desires for wealth, fame, and possessions among post-1980 birth cohorts (Easterbrook et al., 2014; Uhls & Greenfield, 2011a). Other researchers have speculated that this exposure may be contributing to generational decreases in the development of empathy and communitarian values (Konrath, O’Brien & Hsing, 2011; Uhls & Greenfield, 2011b). The leading explanation for all these inverse effects is largely centered on Schwartz’s model of basic human values (Bauer et al., 2012; Easterbrook et al., 2014; Kasser, 2016).

From this perspective, materialism is conceptualized as encompassing a quadrant of self-enhancement dispositions that when triggered by environmental cues, orient people towards non-generosity, envious sentiments, and the attainment of status and possessions (Kasser, 2016; Roccas, 2003). These dispositions are psychologically incompatible and in relative conflict with those from the self-transcendence quadrant of Schwarz’s model, which focus on empathy, altruism, and communality (Roccas, 2003; Uhls & Greenfield, 2011b). Additionally, self-transcendence and self-enhancement are thought to be innate human aspects, but the ways and extent to which these are represented, abstracted, and prioritized in people’s minds as well as behaviorally expressed, are mostly shaped by sociocultural information (Hunt, Keman, & Mitchell, 1996; Uhls & Greenfield, 2011a). Therefore, societies that endorse, reward, and frequently communicate positive sociocultural representations of one set of dispositions substantially more so than an antithetical set, can lead individuals to overdevelop one set and under-develop the other (Dittmar et al., 2014).

**SCHEMA THEORY**

Schemas are generative, subjective, and dynamic mnemonic structures that can contain and process mental representations of values, attitudes, behaviors, meanings of words etc. (Brod, Lindenberger, Werkle-Bergner, & Shing 2015; Giloba & Marlatte, 2017; Lodge & Taber, 2005). Schemas are acquired and can be modified throughout life, but are first encoded through exposure to and interaction with novel environmental stimuli. These unexperienced instances can generate within an individual’s memory an initial affective, lexical, and semantic mental impression i.e., a contextually and conceptually specific referent (Gronau & Shachar, 2015; Kumuran, Summerfield, Hassabis, & Maguire, 2009). This base syntax functions as an informational attractor—a scaffolding and accretionary mechanism that enables a coarse
schema to become reinforced and/or enhanced when instantiated in subsequent exposure to contextual cues from relevant stimuli. Additionally, information/stimuli that are thematically, conceptually, affectively, or semantically congruent or otherwise related, and/or repeatedly presented together, are easier to process and likelier to become encoded into pre-existing schemas (Brod et al., 2015; Giloba & Marlatte, 2017; Gronau & Shachar, 2015).

Furthermore, increasing a schema’s activation potentiates its power to guide perception and recall, generate expectations and inferences, filter out competing or dissonant information, cue related schemas, and orient actions (Brod et al., 2015; Brubaker, Loveman, & Stamatov 2004). Consequently, when a given schema exceeds an activation threshold, it can then, when cued by relevant stimuli: automatically instantiate; co-activate with related schemas; and/or induce nonconscious cognitive, affective, and/or behavioral reactions (Schröder & Thagard, 2013; Lodge & Taber, 2005). Thus put simply, a schema’s development, automaticity, salience, strength, and connection to and co-activation with related schemas are largely determined by the frequency and socio-environmental and affective context in which a given schema is accessed and utilized (Gronau & Shachar, 2015; Kumaran et al., 2009). This is in turn dependent on “proximate, situationally specific cues and triggers” (Brubaker et al., 2004, p. 42), the distribution of which can be affected by socio-structural and cultural changes.

Correspondingly, although materialism is not typically proposed as a schematic information processing construct, materialistic values and attitudes can be construed as schemas (Hunt et al., 1996). To wit, materialism value and attitudinal schemas are effectively the acquired mental representations that correspond to, and which provide a semantic, affective, and socio-culturally shaped framework that enables the development and expression of, innate self-enhancement dispositions. Moreover, as suggested by cultivation and dispositional materialism research, in advanced consumer capitalist societies, materialism schemas can be implicitly activated, shaped, and overdeveloped, in part, by chronic exposure to MMMs (Bauer et al., 2012; Ditmar et al., 2014; Shrum et al., 2005).

**LINKING UK WELFARE SUPPORT & MMMs**

Finally, according to several longitudinal surveys, the British public’s support for welfare has been steadily dropping for three decades (Taylor & Taylor-Gooby, 2015). Several factors may help explain this attitudinal trend, but this article argues that increased exposure to MMMs is one potentially contributing factor. This prediction stems from the following two premises which draw on the cultivation, dispositional materialism, and schema theories described above.

First, over the last thirty years, UK commercial media have become omnipresent and now by in large present Britons with a near constant stream of implicit and explicit evocations, correlates, and signifiers of materialism (McGuigan, 2010; Orgad & Meng, 2017). Since 1986, for example, coverage of celebrities living extravagant lives has skyrocketed across all broadsheets and daily tabloids, which circulate in the millions (O’Neil, 2012). Moreover, the average Briton is currently exposed to 71 outdoor advertisements a day, most of which promote aspirational products and lifestyles (Orgad & Meng, 2017). Hence, it stands to reason that some proportion of Britons will hold materialism schemas that have been chronically instantiated and consequently cultivated to some meaningful extent by long-term exposure to MMMs, given that in the UK, this exposure is virtually impossible to fully avoid.
Second, there is a logical cognitive, affective, and behavioral congruity, and a plausible contiguity, between materialism and anti-welfare schemas. For instance, the former encompass mental representations of self-enhancement dispositions that when triggered dispose people towards ungenerous and individualistic mindsets and behaviors (Hunt et al., 1996; Roccas, 2003). Whereas the latter, can be said to entail negative evaluations of welfare centered on the belief that welfare is too personally costly and goes to undeserving ‘scroungers’ (Reeves & Vries, 2016; Tihelková, 2016), coupled with a disinclination to voluntarily pay for the funding of social programs (Taylor & Taylor-Gooby, 2015). Therefore, in theory, materialism and anti-welfare schema networks are to a substantial degree, comprised of similar if not overlapping self-interested, antisocial, and monetary based values, attitudes, and behavioral representations. If this linkage holds true, then exposure to MMMs potentially moderates the cultivation of both materialism and anti-welfare schemas. Hence, the following hypotheses are proposed.

- **H1:** Momentary exposure to MMMs (as compared to exposure to neutral stimuli) will induce stronger materialism and anti-welfare attitudes.
- **H2:** Regular consumption of materialistic media content will be positively associated with materialism and anti-welfare attitudes.

Lastly, when looked at in tandem, the cultivation and dispositional materialism research suggests the following. Situational exposure to MMMs can concurrently activate materialism schemas and related self-enhancement dispositions, and deactivate self-transcendence dispositions. Over time, chronic exposure to MMMs should strengthen and increase this concurrent activation and deactivation potential. It is posited here that these propositions can be tested by examining the effects of momentary and regular consumption of MMMs on welfare policy positions. That is, given the welfare system’s humanitarian function and fiscal revenue derived funding, then the types of government welfare policies whose enactment the Britons are willing to support, serves as a barometer for their empathy, altruism, and communality. As such, the following hypotheses are proposed.

- **H3a:** Materialism will mediate the effects of momentary exposure to MMMs on anti-welfare policy positions.
- **H3b:** Materialism will mediate the relationship between regular consumption of materialistic media content and anti-welfare policy positions.

**METHODS**

**Overview**

To address these hypotheses, a between-subjects web-survey priming experiment was designed. The between-subjects factor, presentation condition, had two levels, 1) exposure to MMMs and 2) a neutral stimuli control condition. Participants were first presented with an online consent form. Following their consent to participate, participants were randomized into one of the two aforementioned presentation conditions and proceeded to complete a questionnaire.

**Participants**

The surveying agency Qualtrics was commissioned to recruit participants. A stratified sampling quota was employed to recruit an approximately representative sample in terms of
gender, education, and socioeconomic status—(this was measured via parental level of education). Only individuals who had resided in the UK for ten years or more were eligible to participate. Since cultivation theory is premised on the assumption that mass media socializes individuals from infancy (Nabi & Riddle, 2008), this ten-year eligibility requirement was an arbitrary delineation introduced to partly ensure the recruitment of participants with long-term exposure to UK commercial media. Data were collected from 492 British residents from the ages of 18-49 ($M = 32.28$ years). Five participants were excluded from the analyses as their responses were consistently straight-lined and in the top 3% of fastest response times, which indicated unreliable data (Zhang & Conrad, 2014).

In total, 487 participants were included in the analyses. Of these, 244 participants were randomly assigned to the treatment condition (i.e., exposure to MMMs), and 243 to the control condition. From this sample, (24.2%) reported having earned a General Certificate of Secondary Education, (39.8%) an A-level qualification or equivalent, and (35.5%) an undergraduate university degree of higher. Moreover, (37.3%) of participants reported that their parents had a General Certificate of Secondary Education, (31%) an A-level qualification or equivalent, and (26%) an undergraduate university degree of higher. These figures indicate that a fairly balanced mix of participants from lower, middle, and upper socioeconomic backgrounds were recruited. Additionally, the sample consisted of (82.2%) White and (17.8%) Non-White, (56.4%) Female, and (76.6%) non-students and (23.3%) undergraduates or postgraduates. All these demographic figures approximate national averages (Office for National Statistics, 2011).

Procedure
During the questionnaire, participants were asked to complete three observation tasks. These were masked as memory and attention tests, and spread across the questionnaire in between other measures. Before each task, a pop-up note informed participants that they would be asked a question after each task on what was displayed, and were asked 3 post-task test questions. This functioned to minimize respondent inattention, and those who answered any of these 3 questions incorrectly had their sessions automatically terminated and their answers deleted.

For the first task, participants were instructed to carefully observe the content of 4 separate images; each image was displayed for 5 seconds. The second task involved attention to 4 additional images (each displayed for 5 seconds) as did the third task. To control for ordering effects, questionnaire items and stimuli materials were presented in the same order to all participants. Moreover, the stimuli materials were displayed before the outcome measures, and the outcome measures were presented in between 9 random distractor questions (see Appendix). All these design measures were implemented to help mask the purpose of the study and minimize demand effects.

Materials/Stimuli
Consistent with the materialism primes used in previous studies (e.g., Ashikali & Ditmar, 2012; Bauer et al., 2012; Caruso et al., 2013), the materials use for this study’s treatment condition consisted of 4 advertisements for luxury products, 4 tabloid photos of famous celebrities showing off expensive goods, and 4 newspaper headlines of rags to riches stories. All 12 of these images were shown to participants assigned to the treatment condition.
Participants assigned to the control condition were exposed to 12 images that contained value-neutral wording and imagery. These consisted of 4 non-commercial public advertisements about the London subway system, 4 images of natural scenery, and 4 newspaper headlines about dinosaurs. These images did not contain any commercial messages, and are likely to primarily cue train, nature, and dinosaur associations. Hence, they are unlikely to trigger either self-enhancement or self-transcendence dispositions (see Appendix for examples of images used for the treatment and control condition).

Furthermore, at the end of the survey, all participants were asked the extent they agreed that the majority or all of the images that they were shown communicated and/or displayed: 1) Financial Wealth, 2) Luxury, and 3) Rich Lifestyles. Participants were given a five-point Likert-type response scale (1 = strongly disagree, 5 = strongly agree). These measures were averaged to create a composite variable: \[ M = 3.18, SD = 1.39, a = .97 \]. T-tests showed that the treatment group had significantly and considerably higher levels of agreement than the control group: \( M = 4.26, SD = .79 \) vs \( M = 2.10, SD = .94 \) \( t(485) = 27.43, p < .001 \). These results indicate that the treatment materials were effective and reliable instruments for communicating materialistic messages.

**Predictor Variables**

**Momentary Exposure To MMMs:** A grouping variable was devised from the presentation condition coded as (1 = treatment group, 0 = control group).

**Regular Consumption of Materialistic Media Content.** Following the definition of materialism introduced in this article, materialistic media content is defined here as salient media representations and endorsements of affluence, fame, image, status, and/or conspicuous consumption. Accordingly, viewing frequency measures were developed for 9 television shows (e.g., *The Apprentice*, *X-Factor*, *Keeping Up With The Kardashians*, *Made in Chelsea*), 5 daily tabloids (e.g., *The Sun*, *The Daily Mail*), and 10 magazines (e.g., *Vogue*, *Cosmopolitan*, *GQ*, *Esquire*). These media products were selected by the author because they are both popular in the UK (BARB, 2017; Dicleanu, 2014; O’Neil, 2012; Ponsford, 2017; Wetherill, 2016), and have been found to regularly feature the types of salient materialistic content that is known to directly trigger or be associated with increases in materialistic orientations. For example, in-depth textual analyses studies note that *The Apprentice* and *X-Factor* emphasize luxury goods as highly desirable, and promote cutthroat competition for the chance to become rich and famous (Dicleanu, 2014; Littler & Couldry, 2008; McGuigan, 2009). Moreover, *Keeping Up With The Kardashians* and *Made In Chelsea*, center on the glamorous lifestyles of wealthy famous people, and heavy consumption of these types of shows has been found to be positively correlated with materialism (Lewallen et al., 2016). Furthermore, content analysis studies show that the selected UK tabloids for the present study largely focus on reporting about moneyed celebrities (O’Neil, 2012), whereas the selected magazines function as advertising channels designed to induce the purchasing of luxury products (Nunes, Drèze, & Han, 2011).

Participants were asked to indicate their frequency of attending to each of aforementioned media products in either online or in conventional form on a five-point Likert-type response scale (1 = never, 5 = very often). These scores were then grouped by medium and averaged to construct three composite variables: materialistic magazine consumption \( M = 1.5, SD = .79, a = .94 \), materialistic reality-based television show consumption \( M = 2.1, SD = .93, a = .87 \),
and materialistic tabloid consumption ($M = 2.1, SD = .95, a = .80$). In lieu of longitudinal data or repeated measures, these variables also serve as rough proxies for long-term exposure to materialism stimuli.

**Covariates**

*Demographics.* Measures were included for gender, age, education, ethnicity, and socioeconomic status. These factors have been shown to influence media cultivation effects, materialism, and welfare attitudes (Reeves, & de Vries, 2916; Taylor & Taylor-Gooby, 2015; Harmon, 2001).

**Outcome Measures**

*Materialism.* Six self-developed items based largely on Kasser and Ryan’s (1993) Aspiration Index were employed. These items included the following. “Financial wealth is a mark of success”, “I would be much happier if I owned expensive homes, clothes and cars”. “I want a high-paying career so that I can buy a big house and luxury products”, “Schools should teach more about how to become successful in business”. “I want to become successful in a business of my own”. “I want to be financially wealthy”. Participants were presented a five-point Likert-type response scale (1 = strongly disagree, 5 = strongly agree). The scores were averaged to create a composite variable: ($M = 3.4, SD = .76, a = .75$).

*Anti-Welfare Attitudes.* Participants were asked to indicate how much they agreed on a five-point Likert-type response scale (1 = strongly disagree, 5 = strongly agree) with four self-developed items, one of which was reverse coded. These included the following: “Benefits make people lazy and should be cut or eliminated”. “The majority of people in poverty are mostly poor because they didn’t work hard enough and/or value education”. “We need to raise taxes on higher salaries and corporations to fund more social programs and benefits that help the poor and less fortunate”. “Most people in the upper economic classes had the ability and required work ethic to accumulate wealth, and it is thus unfair to make them pay higher taxes than everyone else”. The scores were averaged to create a composite variable: ($M = 2.5, SD = .86, a = .70$).

*Anti-Welfare Policy Support.* Welfare encompasses various taxpayer-funded public services (e.g., healthcare, unemployment insurance, student financial aid), that are designed to support individuals with limited financial means. Accordingly, four semi-vignettes were developed, with each describing a hypothetical proposed government policy that would negatively affect varying welfare services (see Appendix for full list). Participants were asked to indicate their support for the enactment of each policy on a four-point forced choice Likert-type response scale (1 = strongly against, 4 = strongly support). To partly ensure that participants read each policy, timers were placed on these instruments so that participants had to wait at least 6 seconds before being allowed to answer. The scores were averaged to create a composite variable: ($M = 2.5, SD = .71, a = .69$). The Cronbach’s Alpha score is just under the .70 delineation score for generally acceptable reliability. However, each mock policy was modelled after actual UK government tax cuts, austerity measures, and welfare reforms that according to extensive policy research, have had detrimental effects on welfare institutions and beneficiaries (Hammett, 2014; Harvey, 2005; Wiggan, 2015). Additionally, a two-tailed Pearson’s correlation test showed this composite variable to be largely correlated with the anti-


welfare attitude variable $r (485) = .57$, $p < .001$. This indicates that these variables effectively tap into the cognitive-affective facets that comprise anti-welfare orientations, which can orient political behaviors such as voting and boosting. Given all these factors, the anti-welfare policy variable was deemed by the author to be ‘acceptable enough’ to include in the analyses.

Randomization Check
Chi square and T-tests revealed no significant differences between the treatment and control group in gender $\chi^2 = (2, N = 487) = 0.37$, $p = .83$; age $\chi^2 = (7, N = 487) = 3.67$, $p = .80$; education $\chi^2 = (4, N = 487) = 1.3$, $p = .87$; ethnicity $\chi^2 = (4, N = 487) = 2.39$, $p = .66$; socioeconomic status $\chi^2 = (5, N = 487) = 10.24$, $p = .07$; materialistic magazine consumption $t (485) = 1.39$, $p = .16$; materialistic reality-based television show consumption $t (485) = 1.82$, $p = .07$; or materialistic tabloid consumption $t (485) = -1.16$, $p = .24$. These results indicate that randomization was successful, and raise confidence that any observed significant influence of the predictor variables on the outcome measures works beyond the influence of demographics (see also Table 1 for zero-order correlations for all measured variables.

### Table 1: Zero-Order Correlations For All Measured Variables N = 487

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<td>1.</td>
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<td>-.053</td>
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<td>.119***</td>
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<td>.172***</td>
<td>.210***</td>
<td>.231***</td>
<td>-.215***</td>
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*Note: *p < .05. **p < .01. ***p < .001. Correlations are two-tailed Pearson’s r coefficients.

### RESULTS
To test H1, two analysis of variance (ANOVA) tests were conducted with the use of SPSS version 21; using momentary exposure to MMMs as the independent variable. For the first test materialism was entered as the dependent variable. Results showed a statistically significant difference between the treatment and control groups with the former reporting greater materialism scores ($M = 3.46$, $SD = .73$ vs $M = 3.28$, $SD = .78$) $F (1, 485) = 6.94$, $p = .009$, Cohen’s $D = 0.24$. For the second test, anti-welfare attitudes were entered as the dependent variable. The results showed a statistically significant main effect for exposure to MMMs on anti-welfare attitudes, with the treatment group reporting stronger anti-welfare attitudes ($M = 2.54$, $SD = .86$ vs $M = 2.35$, $SD = .85$) $F (1, 485) = 5.90$, $p = .015$, Cohen’s $D = .22$. 

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Additionally, the randomization checks gave no indication that the demographic covariates would impact the results due to differences in conditions. Nevertheless, a second analysis entering demographics as control variables was conducted and showed relatively similar findings. Therefore, only the more parsimonious models without demographics are presented here. Furthermore, all these findings are consistent with the predictions for H1.

To test H2, two ordinary least square hierarchical regression models were constructed, respectively predicting materialism and anti-welfare attitudes. Demographic covariates were entered in the first block, momentary MMMs exposure into the second block, and the composite materialistic media consumption variables in the third block. This cross-sectional analysis procedure was used to control for the effects of the treatment condition, and because the predictor variables used to test H2 were drawn from observational data rather through experimental manipulation. The results are shown in Table 2 below.

**Table II: Predicting Materialism and Anti-Welfare Attitudes N = 487**

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<td>Anti-Welfare Attitudes (M2)</td>
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<td>Momentary MMMs exposure</td>
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| Note: Table 2 represents the hypothesis test for H2. Column entries include increments in variance explained from the final equations of two hierarchical regression analyses. *p < .05. **p < .01. ***p < .001. |

Beginning with the first model (M1), the standardized β coefficients show that age and momentary MMMs exposure had significant effects on materialism. Over and above the effects of these variables, the block of materialistic media variables explained 5% of the total variance in the model Adjusted R2 = .08, F(9, 477) = 6.01, p < .001. Of these, materialistic reality-based...
television show consumption ($\beta = .21$, $p < .001$), was positively related to materialism. The $\beta$ coefficients for second model (M2) show that education and MMMs exposure had significant effects on anti-welfare attitudes. Here, the block of materialistic media variables improved model performance by 5% $\text{Adjusted } R^2 = .06$, $F(9, 477) = 3.32, p < .001$. Of these, materialistic reality-based television show consumption had a positive relationship with anti-welfare attitudes ($\beta = .14$, $p = .016$). The results from both M1 and M2 suggest that respondents who more frequently viewed shows such as *The Apprentice* or *X-Factor*, are more likely to hold stronger materialistic and anti-welfare attitudes than lighter consumers of these shows. These results are consistent with the predictions for H2.

Figure 1. Mediation analysis indicating relations between momentary exposure to MMMs, materialism, and anti-welfare policy support.

![Diagram](image_url)

Note. Figure 1 represents the hypothesis test for H3a. Values are the result of a mediation analysis performed in the indirect macro for SPSS. Covariates were not included in this test.

To test H3a, a bootstrapping approach for estimating indirect effects in simple mediation was employed using Hayes’ (2013) PROCESS macro (model 4) with 10,000 bootstrap estimates for the construction of 95% confidence intervals. The anti-welfare policy support, materialism, and treatment variables were standardized and entered as the outcome, mediator, and predictor respectively. Results showed that momentary exposure to MMMs had a significant and positive total effect on anti-welfare policy support ($\beta = .10$, $SE = .05$, $p = .035$). The bootstrap intervals for the estimated indirect effects suggest that materialism ($\beta = .04$, *Bootstrap SE* = .01; [CL] = [.0105, .0733], $p = .014$), significantly and fully mediated the effects of exposure to MMMs on anti-welfare policy support (see Figure 1). A second test was run entering the demographic variables as covariates. The results were effectively the same, and so only the model without covariates is shown. Moreover, these findings support the predictions for H3a.

To test H3b, I employed the same bootstrapping procedure and mediator and outcome variables from the previous mediation test. A standardized materialistic reality-based television show consumption variable was entered as the predictor, since this was the only one of the three non-manipulated predictors found significant in the hierarchical regression analyses above. The demographic and treatment condition variables were controlled for and entered as covariates. Results showed this predictor to have a significant and positive total effect on anti-welfare policy support ($\beta = .27$, $SE = .05$, $p < .001$). The bootstrap intervals for the estimated
indirect effects suggest that materialism ($\beta = .06$, Bootstrap $SE = .02$; [CL] = [.0362, .1021], $p < .001$), significantly and partly mediated the effects of materialistic reality-based television on anti-welfare policy support (see Figure 2). These findings support the predictions for H3b.

**Figure 2.** Mediation analysis indicating relations between regular consumption of materialistic reality-based television shows, materialism, and anti-welfare policy support

Note. Figure 2 represents the hypothesis test for H3b. Values are the result of a mediation analysis performed in the indirect macro for SPSS.

**DISCUSSION**

This study attempted to address three hypotheses. First, it was proposed that materialism and anti-welfare orientations operate through associative and contiguous value and attitudinal schema networks that can be primed and potentiated by momentary exposure to MMMs. Second, it was proposed that heavy consumers of media products that valorize and regularly portray wealth, fame, and luxury would be more materialistic and anti-welfare than lighter consumers. Third, it was proposed that momentary and frequent attention to MMMs would indirectly increase support for the governmental enactment of punitive welfare policies via activating materialism schemas, which when instantiated, decrease dispositional prosocial orientations. In general, all three hypotheses were confirmed. Results suggest that momentary exposure to and regular consumption of MMMs indeed induces stronger materialism and anti-welfare attitudes. Additionally, as shown in Figures 1 and 2, mediation tests further confirmed the possibility that exposure to MMMs mediates a decrease in welfare support.

Moreover, the majority of materialism cultivation research has relied on instruments that only measure overall, general, and traditional television viewing, instead of the consumption frequency of specific television programs or other types of commercial media products (Good, 2007; Shrum et al., 2005; Yang et al., 2008). A few very recent studies have examined the association between medium-specific content viewing and materialism, but these only looked at single genres such as celebrity-focused media and reality-television (e.g., Lewallen et al., 2016; Opree & Kühne, 2016). The self-reported media consumption instruments used for the present study enabled the examination of a much broader set of media products and mediums. In this way, this study heeds Harmon’s (2001) largely ignored recommendation for materialism cultivation research to incorporate analyses of multiple media sources, programs, and content types, which is needed in order to differentiate between the cultivation effects of different media products. This is critical to moving this branch of cultivation research forward given that a) not all media products are equally materialistic; b) audiences typically consume multiple
commercial broadcasts and publications; and c) the Internet has given audiences unprecedented control over the media products that they are exposed to. Notably, the present study found a positive association between materialism and the regular consumption of reality-based television shows about aspiring business people, wealthy people’s lives, and musical talent competitions respectively including \textit{The Apprentice}, \textit{Keeping Up With The Kardashians}, and \textit{X-Factor}. As these types of shows are replete with MMMs that are engineered to absorb audiences into the glamorous world of wealth and celebrities, they have a strong potential to function as cultivators of materialistic values and attitudes. These findings are thus consistent with prior materialism cultivation studies (Lewallen et al., 2016; Shrum et al., 2011).

Furthermore, experimental psychology studies have found that materialism-related textual primes can trigger antisocial responses (Bauer et al., 2012; Vohs, 2015), such as increased support for instituting a “free-market system of organ transplants that [benefits] the wealthy at the expense of the poor” (Caruso et al., 2013, p. 301). However, while insightful, these studies captured responses to purely or somewhat unrealistic hypothetical scenarios, and relied on small and mostly undergraduate samples. Therefore, to gain a more representative account of how exposure to materialism related stimuli can affect responses to contemporary real-world public policy inputs and societal dilemmas, the present study recruited a demographically diverse and relatively large sample. It also utilized mock punitive welfare policies modeled after real ones. \textit{Policy #1}, for example, is based on stipulations from the 2013 Jobseeker’s Act. These mock policies also contained consumerist language, with three of them worded to subtly imply that their enactment may benefit participants economically (e.g., by increasing their purchasing power see Policy #2, and #4). Such framings mirror the actual consumerist frames and either/or dilemmas that are regularly featured in popular UK newspapers, as well as the press briefings and interviews of governing ministers (e.g., see Cowburn, 2016; Elgot, 2017; and Hawkes, 2017). This does make it difficult to ascertain whether participants were reporting an anti-welfare stance or simply a preference for the implied personal benefits of instituting the mock policies (e.g., tax cuts, and more affordable housing and consumer goods). Alternatively, it could also be the case that participants’ support for these policies is underpinned by both a belief that they can stand to benefit monetarily from them, as well as a negative appraisal of welfare. This ambiguity notwithstanding, the arguably more realistic public policy responses captured by this study, are consistent with, and thus lend an added degree of ecological and external validity to, the existing experimental research on dispositional materialism.

Correspondingly, although the present study was not longitudinal, its unique experimental and observational design enabled a closer gauging of how the activation of materialism schemas via the viewing of MMMs possibly undermines prosociality. That is, the results trace a line of potential socio-cognitive development where in the first instance, momentary attention to MMMs instantiates and heightens the accessibility of both materialism and anti-welfare schemas. Over time, the chronic instantiation of these schemas via regular MMMs consumption can augment their activation potential and interconnectivity. This then raises their probability of becoming co-activated, which in turn potentiates their corresponding dispositional orientations, such that when triggered by relevant media stimuli, they can plausibly decrease or inhibit concerns for and actions to aid the impoverished and the community at large. Hence, these findings lend initial, albeit tentative, empirical confirmation of commercial media’s suspected role in contributing to both the overdevelopment of self-
enhancement and underdevelopment of self-transcendence dispositions. This role has been posited in developmental psychology research, but has hitherto not been directly tested (Ditmar et al., 2014; Easterbrook et al., 2014; Konrath et al., 2011).

Lastly, this study’s schema-cultivation model of dispositional materialism can also contribute to explanations for why the UK public’s support for welfare to aid the impoverished and unemployed has been decreasing during a time of rapidly growing wealth disparities, living costs, and rates of precarious and underemployment. However, it is not the intent here to reduce the complexity of the British public’s declining welfare support to a single socio-cognitive explanation. To be certain, there are several demographic and psychographic factors that affect welfare support, and many of which were not controlled for in this research, such as employment status and social dominance orientations (Hamnett, 2014; Sibley & Duckitt, 2010). Ergo, the presented findings merely give empirical credence to the possibility that the cognitive-affective mechanisms underpinning materialism are another potential contributing factor to this decreasing support when taking into account the coinciding spread and omnipresence of MMMs in UK society. In this respect, this study extends materialism research to an uncharted macro socio-political context, by shedding new light on some of the societal harms that may follow from commercial media’s situational activation and consequent cultivation of materialism.

LIMITATIONS
Due to its cross-sectional design, the results of this study are susceptible to social desirability response bias, and based on a limited snapshot of Britons’ media consumption habits and materialism and welfare orientations. Therefore, although the data followed a theorized cultivation pattern, this is not enough to confirm a cultivation effect, as this confirmation requires longitudinal observations. Additionally, while the publications and television shows selected for inclusion in this study are popular in the UK (BARB, 2017; Dicleanu, 2014; O’Neil, 2012; Ponsford, 2017; Wetherill, 2016), the observed low average consumption scores indicate that they were not so popular with this sample. These limitations are mitigated partially by the experimental component which provides a better design for inferring causal relationships than correlational ones (Shrum et al., 2011). However, this experimental component is limited in external validity, as the treatment condition entailed the presentation of MMMs that were isolated from the surrounding media that they would normally be embedded in. Furthermore, even though this was masked as an attention and memory task, and despite the use of subsequent distractor questions in the survey, the priming was not subtle as participants were made to directly attend to MMMs. This means that there is a possibility that some participants realized the purpose of the study and corrected their biases when answering the questions on welfare, or used the primed materialism concept more deliberately during their contemplation of the welfare questions. These factors may partly explain the small effect of the treatment condition on the outcome measures, but also raise the question of whether more implicit priming induces different effects. Therefore, given these limitations, firm conclusions should not be drawn from the otherwise significant findings presented above. Further research utilizing a more longitudinal or repeated measures design, along with larger representative samples, subliminal priming sessions, more precise anti-welfare measures, and additional
materialistic media product consumption measures, are needed to confirm if the findings from this research are generalizable to the UK population.

NOTES

1 An experimental study by Shrum et al., (2011) for example, found that materialism may be partly cultivated by actively engaging with compelling media narratives that explicitly tie wealth and luxury to happiness. The researchers posit that the more a given media narrative captivates and transports a viewer, the likelier this is to activate high-end elaboration central route cognitive processes and thus influence stable values and attitudes.

2 This broadly refers to the automatic bias towards self-enhancement values, attitudes, and practices (Kasser, 2016).

3 For example, approval for increasing taxes to fund benefits for low-income people fell from 61% in 1989 to 27% in 2009, and remained relatively low at 30% in 2014. Additionally, support for increasing unemployment benefits fell from 35% in 1984 to 7% in 2007, and rose only slightly to 13% in 2014 (Taylor & Taylor-Gooby, 2015). What makes these figures especially perplexing, is that during this same period, the UK has experienced rapidly growing socioeconomic inequalities, wage disparities, precarious and underemployment rates, and living costs (Dorling, 2014; Wiggin, 2015).

References


**APPENDIX**

**Distractor Questions:**

The following four questions were presented with five-point Likert-type response scales (1 = strongly disagree, 5 = strongly agree): “From the ages of 16-18 I was taught about the Parliamentary government system in school”. “All workers, including illegal immigrants, should be allowed to organise and strike for better working conditions”. “My family or close friends have encouraged me to vote in elections”. “In secondary school I learned about civic responsibilities”. The other five distractor items were presented with five-point Likert-type response scales (1 = never, 5 = very often). “How often do you use Pinterest?” “How often do you use Snapchat?” “How often do you use Tumblr?” “How often do you read the New Statesman in either online or print form?” “How often do you read The International in either online or print form?”

**Policy Semi-Vignette Instruments:**

Policy #1: Parliament is going to vote on the 2016 Welfare Reform Act. If this act is passed, people who are unemployed or working for less than 16 hours a week, and receiving any type of Jobseeker's Allowance (the current average sum given to claimants is £65 a week) will be required to instantly participate in workfare schemes. These schemes include public works jobs such as beach and street clean-up, as well as volunteer work for enrolled private and third-sector organisations.

Policy #2: The UK government is considering lowering the PAYE tax rate on individuals making annual incomes of £31,786 or more from the current 40% to 35%, in order to stimulate consumer spending and job growth. To balance the loss of these tax revenues, the government will need to cut funding for the construction of new NHS primary care clinics in economically deprived areas.

Policy #3: Parliament is considering passing the 2018 City Home Ownership Act. This will lower taxes and construction fees for investors and companies who build new flats in urban areas. This Act is designed to tackle the growing shortage of affordable city housing. To help pay for these financial incentives, the total amount of money received by unemployed people on Jobseeker’s benefits will be reduced by 15%.

Policy #4: The UK government is considering reducing VAT taxes on cars, designer clothing, smartphones and financial services to make these more affordable to the general public. To balance the loss of these tax revenues, the government will cut funding for foreign aid.
Examples of images shown to treatment group
Examples of images shown to the control group
Travel photographer proves dinosaurs are the key to taking the best pictures