Emotional Campaigning in Politics:
Being Moved and Anger in Political Ads Motivate to Support Candidate and Party

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Abstract

Political campaigning is an inherent part of politics to recruit support from voters. Video advertisement for a political candidate or party has been a widely used method for many years, distributed via television and online, including social media. This type of advertisement attempts to recruit support by presenting convincing arguments and evoking various emotions about the candidate, opponents, and policy proposals. We discuss recent arguments and evidence that a specific social emotion, namely the concept *kama muta*, plays a role in political advertisements. In vernacular language, *kama muta* is typically labeled being moved or touched. We compare anger and *kama muta* theoretically and discuss how they can influence voters' willingness to support a candidate. We then, for the first time, compare *kama muta* and anger empirically in the same study. Specifically, we showed American participants short political ads from the 2018 U.S. midterm elections that either evoked anger or *kama muta* and came from either Democratic or Republican candidates. We assessed participants' degree of being angered and moved by the videos and their motivation for three types of political support: ideational, financial and personal. Participants were more angered by the selected anger-evoking videos and more moved by the selected moving videos of the party which they identified with more. They were also more motivated to support the advertised candidate and party in different ways if either emotion was elicited. If an emotion was evoked, its effect on political support was largely independent from the prior support for the party. In other words, elicitation, but not impact, of an emotion is moderated by prior social identification in the context of political advertisement. We discuss limitations of the method and implications of the results for future research and practice.

(Word count: 322)

Emotional Campaigning in Politics: Moving and Upsetting Political Ads Motivate to Support Candidate and Party

Political advertisement is an inherent part of politics today and has been so since ancient civilizations. In addition to rallies, canvassing, billboards and telephone calls, modern political advertisement heavily relies on campaign spots that are played on TV or on websites, including social media, hereafter political ads.

In the United States, the number of political ad airings on television, federal and gubernatorial, increased by 86 percent from 2014 to 2018 (Wesleyan Media Project, 2018a). In 2020, the Wesleyan Media Project recorded over 4.9 million ads having aired for federal races this year, more than double the volume of ad airings in the 2012 and 2016 (Wesleyan Media Project, 2020a). It is evident that political advertisement has a wide reach that goes on to grow rapidly.

It is widely acknowledged that political ads try to change preferences for specific politicians, create apprehension towards others, and influence actual turnout both by providing relevant information and by fostering emotions. Academic work on the actual emotions and their impact however has been limited. In the current work, we focus on two specific social relational emotions, *being moved* and *anger*, and their role in creating political support.

Emotions in Political Ads

Brader (2006) researched 1425 political ads from the years of 1999 and 2000, investigating what emotions were evoked in viewers. He found that 72% of the ads were rated to focus on emotion rather than logic. Brader assumed political advertising to significantly influence the decision making of voters, that is, besides other things also their voting behavior. Other scientists agree that emotions are important and decisive for political campaigns (e.g., Marcus et al., 2000). Politicians have realized the political utility of emotions in advertisement, too. Ridout and Searles (2011) showed when and how ads used emotional appeal and that they did this very strategically.

Leading candidates were more likely to use positive emotions like enthusiasm and pride as appeals to foster support, while trailing candidates focused on negative emotions like fear and anger to mobilize their followers.

Emotional ads can either just aim at evoking a general affect in the viewer or they serve the evocation of a specific emotion to guide voters' attitudes towards a candidate and party (Chang, 2001). Various different emotions can be targeted. They include negative emotions like *anger*, *contempt*, *disgust* and *fear* (Fridkin & Kenney, 2012), as well as distinctly positive emotions like *awe* or what is called *being moved* in English vernacular (Seibt et al., 2019). In the following work, we focus on two emotions in particular: being moved, which we conceptualise using Kama Muta Theory (see e.g., Fiske, 2019; Fiske et al., 2019), and anger. Both are central components of the modern landscape of political advertisement. Being moved is especially evoked by somewhat longer ads that include narrative and praise a specific political candidate (see e.g., "Progress is on the ballot" from the U.S. presidential election of 2016; accessible via OSF, <https://osf.io/v3ecg/>). Twenty one percent of Brader's (2006) 1425 analyzed political ads were rated to evoke compassion, which shares relevant traits with *being moved*, and *moving* content was additionally explicitly found in viral political ads of the U.S. presidential election in 2016 (Seibt et al., 2019).

Anger plays a key role in the so-called attack ads. Ads can elicit anger towards a state of affairs against which the politician wants to act, but often the anger is directed at a political opponent. One half of Brader's 1425 ads were identified as anger evoking, which makes anger the most frequently applied emotion in the array of analyzed ads. From 2014 to 2018 the number of attack ads in the U.S. midterm elections has gone up by 61 percent (Wesleyan Media Project, 2018c).

Kama Muta

Being moved - also *feeling moved* - was already recognized as an emotion by Darwin (1890) in his outline of emotion in human and animal (1890). However, being moved has been difficult to

theorize properly, in large part due to the fact the English term is used very broadly and it has no clear facial expression, but rather shares shedding of tears with sadness. Recently, kama muta theory has been formulated to carve out a specific social emotion, termed kama muta (Sanskrit for “moved by love“). Kama muta is conceptualized as a positive social emotion that is felt when close (communal) relations intensify, and motivates to engage in strengthening of communal relation. It largely overlaps with what English speakers call being moved, but there are some instances that most English speakers would not call being moved (e.g., the emotion elicited by observing intense cuteness), and vice versa there are some experiences that could be labeled being moved that are not kama muta (e.g., sadness over loss) (Fiske et. al., 2017a; Fiske et al., 2017c; Seibt et al., 2017).

While some research suggests that being moved is the result of evocations of solidarity, attachment and generosity (Tan & Frijda, 1999) or witnessing moral acts (Algoe & Haidt, 2009; Haidt, 2003), Schubert, Seibt, and Zickfeld (references) have found that being moved is connected to the intensification of communal sharing. Communal sharing refers to people feeling a shared essence and therefore feeling unity with others (Fiske, 2004). As a result, they are motivated to share resources with these others and repeatedly try to reach a feeling of assimilation between each other, e.g. by cuddling (references). The emotion of kama muta is comprised of five components: appraisal, label/ing, physiology (= sensation and feeling), motivation and valence (Zickfeld et al., 2019).

A stimulus (e.g, a political ad) should evoke *being moved* if the stimulus includes the intensification of communal sharing, for instance a communal relation that is in danger and a subsequent confirmation, renewal or triumph of this endangered communal sharing (Fiske et al., 2017b). It is also plausible that perceivers will *be moved* if a problem is introduced and communal relations are emphasized as a way to tackle this problem, therefore perceivably intensifying communal sharing relations. To make this intensification of communal sharing happen, kama muta content emphasizes certain words and phrases (e.g. “we/our“, “helping each other“ and “together“).

Displayed video images facilitate the same effect; sequentially showing pictures of several different people in the same context guides the viewer to conclude a notion of “we“. Combining moving visualized actions (e.g., people helping each other), music sequences and titles (e.g., “Bridges“), videos have an optimal basis for intensifying the communal sharing relations between perceiver and the perceived person.

Anger

According to Carver and Harmon-Jones (2009), two fundamental features constitute the emotion of anger: first, its appraisal of a situation (Ortony et al., 1988; Roseman, 1991; Scherer et al., 2001; Smith & Ellsworth, 1985), and, second, the motivational processes behind anger (Arnold, 1960; Cacioppo et al., 1999; Carver & Scheier, 1998; Davidson, 1998; Frijda, 1986; Roseman, 1991). For the former feature, there exists the basic distinction of emotions being appraised as either positive (e.g. pleasant) or negative (e.g. aversive) in a situation (Lazarus, 1991). *Anger* is categorized as a negative emotion in general (Harmon-Jones, 2004). However, there are many different emotions which are generally categorized as negative. In the past, additional emotion components besides an emotion's appraisal were sought to distinguish anger from other negative emotions: for example, a violation of thought rules (e.g. Frijda, 1986; Mascolo et al., 2000), the experience of and focus on blameworthiness (Ortony et al., 1988) or the experience of being hurt by an intentional act of someone (Frijda, 1986). Carver and Harmon-Jones (2009) argued that all these additional aspects of an event besides valence do the same thing; they all motivate to remove (e.g. Depue & Iacono, 1989; Fox, 1991), the second fundamental feature characterizing anger. In more detail, Carver and Harmon-Jones (2009) argue that “anger often promotes the effort to remove the violation of what ‘ought’ to be“. This can lead to the motivation to change someone’s behaviour (Fischer & Roseman, 2007) or, more generally, it leads to the motivation to reopen the closed path to a desired goal (Frijda, 1986). Building on this, Carver and Harmon-Jones lay out a range of evidence that anger is connected to an approach-oriented motivation rather than an avoidance-

oriented one; like the majority of emotions described to have a negative valence (e.g. fear, disgust or shame). The authors conclude that this makes anger an approach-related affect (Carver & Harmon-Jones, 2009). Additionally, Neumann (2000) showed that feelings of anger presuppose that the cause of the negatively experienced event is external. External attribution exerts feelings of anger in contrast to, for example, guilt, which is mainly related to internal attribution. This further supports the characterization of anger as approach oriented. An angry mind might, before all else, approach the problem because it is perceived as an external one.

Emotions from Political Ads Depend on Existing Social Relation

Seibt and colleagues (2019) showed, with the example of *kama muta*, that the elicitation of emotions from a political ad depends on the viewer's degree of prior preference for and identification with the candidate or party presented in the spot. The authors showed participants real political ads from the U.S. election in 2016, from Clinton and Trump, and asked them about their preference for one or the other candidate and party beforehand. Their studies showed that Clinton voters were much more moved to tears by Clinton ads than by Trump ads and vice versa. The authors subsequently showed that the elicitation of the emotion *kama muta* predicted how motivated a viewer was to support the shown candidate with her or his vote.

The Current Research

The present study serves as an extended replication of the study of Seibt and colleagues (2019) of the U.S. presidential election in 2016. Beyond providing evidence on replicability, it contributes two new insights to motivational effects of emotional political advertisement: First, we also investigated the evocation and the motivational effects of anger and compare them with the results on being moved. Second, we use actual political ads that are shorter than ads used in previous research so far (length of 35 seconds on average).

For both emotions, being moved and anger, we hypothesized two effects: (1) the enhanced evocation of the emotion by watching selected political ads that match a person's political

preference and (2) an effect of this evocation on the participants' motivation to support the political candidate or party that commissioned the watched ad. We preregistered all hypotheses (<https://aspredicted.org/25598.pdf>).

Being Moved

An intensification of an interpersonal relation should especially be facilitated for peers considered as ingroup. Whether a political spot moves the viewer depends on the match between the ad's presented core values and the viewer's own worldview. As Seibt et al. (2019) already theorized, it also depends on the social relation between viewer and the candidate or party presenting the ad. That is, the prior identification with and preference for a candidate or party should influence the elicitation of *kama muta*, too, because communal relations are transitive (Fiske, 1992).

Hypothesis 1. Participants should be especially moved by an ad that has the party affiliation which the viewer identifies with most.

Additionally, with the extent to which a political ad is evoking the emotion of being moved, the participant's motivation should increase to support the shown candidate and the associated party. We reason this prediction through *kama muta* theory (Fiske et al., 2017a; Schubert et al., 2016; Seibt et al., 2017). The theory assumes that the intensification of communal sharing leads to the motivation to devote oneself to the communal sharing relationships which were intensified just then. Within the political context devoting oneself to this relationship might manifest in actively voting for the candidate and in supporting the candidate by ideational (e.g., acquiring other's votes) and financial means (e.g., donation). We test this hypothesis for the components of being moved, namely feeling, sensation, appraisal, and valence, separately.

Hypothesis 2. Being moved by the ad should have a significant effect on the viewers' motivation to support the candidate or party that commissioned the moving ad.

Anger

Anger analyses were explicitly planned and preregistered as an exploratory approach. In this

regard, we formulated hypotheses for effects on anger (hypothesis 3) and of anger (hypothesis 4) in political advertisement that matched the theoretically derived hypotheses for being moved.

Hypothesis 3. Participants should be especially upset by an ad that has the party affiliation which the viewer identifies with most.

Hypothesis 4. Being upset by the ad should have a significant effect on the viewers' motivation to support the candidate or party that commissioned the upsetting ad.

In summary, we predict that emotion evocation is increased when the videos party affiliation and the viewers' party preference match (H1 u. H3). We further predict that with the extent to which the two emotions, kama muta and anger, are evoked the participant's motivation increases to support the candidate and party responsible for the ad (H2 u. H4).

Methods

The study was run from the 27th to the 30th of October in 2018, one week before the midterm elections in the United States, with participants from the US. We selected eight political ads for eight different candidates to be shown. Note that we did not match participants' geographical location to the states or districts in which the candidates ran.

Participants

A total of 223 American participants were recruited and reimbursed via Mechanical Turk. They were paid \$3 each. We excluded participants who indicated to identify neither with Democrats nor with Republicans. As preregistered, we also excluded participants who guessed the Democratic Party or an independent group as the ad-commissioners of only one specific ad, the "America is back"-ad (<https://osf.io/v3ecg/>). It was highly evident that this ad was commissioned by the Republican Party and served as an attention check. The final sample consisted of 146 participants. 76 indicated to be male (52.1%), 69 to be female (47.3%) and one preferred not to indicate a gender (0.7%). The average age was 39 years, ranging from 21 to 72. Of those who indicated a preference, 105 of the participants identified themselves more

with the Democratic party (71.9%), while 41 identified themselves more with the Republican party (28.1%). Fifty-two participants reported to live in an urban neighborhood (35.6%), 70 to live in the suburbs (47.9%), and 23 to live in a rural neighborhood (15.8%, one missing value). Regarding ethnic background, 114 of the participants indicated to be White (78.1%), 16 to be Black (11%), 9 to be Asian (6.2%), 4 to be Hispanic (2.7%), and 2 participants indicated *Other* writing they were “biracial” and “White/Native American” (1.4%). One preferred not to indicate (0.7%). In the present study, 36 out of the 50 states (+ D.C.) in the U.S. were represented.

Design

The design varied experimentally within participants the source of the video (Democratic or Republican) and the emotion elicited by the video (kama muta or anger videos). For each combination we showed two videos, resulting in a total of eight videos. Videos were shown in random order. Participants’ initially stated party preference was a quasi-experimental between-subjects factor (Republican vs. Democratic). In sum, the design was a 2 (video source, within) x 2 (video emotion, within) x 2 (party affiliation, between) mixed model.

Video Material

We searched political ads online that according to our judgment elicited either kama muta or anger in a clear way. Note that we did not sample stimuli from the larger sample of ads. Our results should thus be viewed as proof of existence of the hypothesized effects, but they cannot be generalized to the larger body of emotional ads. For the Democratic side two political ads stood out especially: 1. Bill Nelson for Senate and 2. Carper for Senate. The video titles “Stars” and “Bridges” already set the stage for the emotion of *being moved*. Adjectives like “together” and “helping each other” were predominant in the videos. This suits *being moved* very well and is the reason why we chose these two ads for the Democratic side together with their wide reach expressed by the high click count. On the Republican side we found two slightly shorter videos

which show the same emotional direction trying to evoke a feeling of communal sharing, whose intensification is considered to be the main reason for *being moved* (Seibt et al., 2016). The Republican video “More to Do/America is back“ had over 4.5 million views on YouTube while the second one “Harvey“, although just having over 16.000 views, exhaustively fulfilled criteria for a moving video and was therefore implemented in our study as the second political ad on the Republican side.

Because there were so many different *anger*-ads, our main criterion for choosing suitable ones was the intensity of the emotion evocation without taking the viewer-counts into account. We chose two attack ads for the Democratic side, one against Barbara Comstock and the other against Mike Coffman, both politicians of the Republican party; and two attack ads for the Republican side, one against Joe Donnelly and the other against Joe Radinovich, both affiliated with the Democratic party. In sum, we chose eight different videos. Each video is accessible on the corresponding OSF page (<https://osf.io/v3ecg/>).

The content of the four kama muta ads was very similar. The ads communicate that there exists a problem which, however, is solvable if all work together. The four anger-ads on the other hand all claim the featured person to deliberately have done something bad for the whole community, state or even country for selfish reasons (i.e., money reputation).

Procedure

After the presentation of general information about the experiment, participants were asked to report their political identification (i.e. “What party do you identify with more?“) choosing between identifying more with the Republican party, the Democratic party or neither of them. Subsequently, the respondents were shown the eight political ads in a randomized order.

After each ad viewers indicated what party affiliation they believed the video to have (i.e. “What do you think - was this an ad for a Republican, Democratic, or Independent candidate?“).

Further, respondents reported (1) how *moving* and (2) how *upsetting* the content had been to them. The emotion *kama muta* (1) was assessed by asking questions about respondents' feeling (e.g., "The ad was touching."), sensation (e.g., "The ad was eye-moistening."), appraisal (e.g., "There were people in the ad who were welcoming or being welcomed.") and positive valence (i.e., "The ad had a positive tone."), whereas anger (2) was assessed by asking about participants' feeling towards the ad-commissioning candidate (e.g., "The person commissioning this ad annoyed me."), their feeling towards the featured candidate¹ (e.g., "The person being criticized in this ad annoyed me."), appraisal (i.e., "There were people in the ad who were criticized and rejected."), and negative valence (i.e., "The ad had a negative tone."). All items were presented with a 7-point Likert scale, anchored in 1 ("not at all") and 7 ("very much"), as is suggested for measuring *kama muta* by Zickfeld and colleagues (2019). Moreover, for every video participants indicated their motivation to support the candidate that had commissioned the seen ad, regarding voting support (i.e., "If I could vote in this election, I would be inclined to vote for the candidate or party that commissioned the ad."), financial backing (i.e., "I think it makes sense to give money to the candidate or party that commissioned the ad."), and ideational help (i.e., "If I knew somebody who can vote in this election, I would try to argue for the candidate or party that commissioned the ad."). Respondents indicated their (dis)agreement with the three statements on a 5-point Likert scale, ranging from 1 ("not at all true") to 5 ("completely true").

Finally, participants reported if they had seen any of the eight ads before and if they had had technical complications (e.g., sound or video playback). Subsequently, respondents indicated their gender, age, ethnicity, and the country, state, and neighborhood they were living in.

Results

Preregistration

We preregistered our analyses (<https://aspredicted.org/25598.pdf>). We had 146 participants in

¹ We included this variable to cover the case that people get angry at a political ad they don't agree with.

the final data set. Each participant watched 8 videos. This resulted in a sample of 1168 observations. Our sample fell short on our preregistered goal of 150 participants by four. We considered this number still satisfactory. A sensitivity analysis with the criteria $\alpha = 0.05$ and $\beta = .080$ calculated a minimum relevant effect size of $\eta_p^2 < 0.01$. We, further, preregistered to remove every video for which its source (= commissioning party) was correctly identified in less than 66% of the cases. We didn't have to do so with any video. According to preregistration, how we treated wrong guesses on the other videos was dependent on the wrong guesses' frequency in the specific cases. For the kama muta videos we found that in less than 25% of the cases participants wrongly guessed which party commissioned the ad. Therefore, we excluded all cases in which it was guessed wrong which party commissioned the specific ad and conducted all kama muta analyses with the variable *video party* (i.e., the videos' real party affiliation). For the anger videos, we found that in more than 25% of the cases participants guessed wrong which party commissioned the ad. Therefore, as preregistered, we conducted anger analyses twice: (1) with the videos' real party affiliations as independent variable and all wrong guessing cases removed (as in the kama muta analysis), and (2) with the party affiliation a viewer guessed to be the video's affiliation, *party guess*. No playback problems with the videos or difficulties with sound were reported. Thus, no additional exclusions followed.

Aligning with our preregistration, we also checked if the items for the two different components of feeling anger (six items in total) could be aggregated into one scale. The two sub facets were anger towards the candidate and party that were (1) featured in the ad (feeling towards protagonist) and towards those that (2) commissioned the ad (feeling towards commissioner). Both sub facets showed satisfactory reliabilities ($\alpha = .94$ and $\alpha = .95$). The correlation of these two components, however, was higher than $r = -.60$ (i.e., its absolute value was $< .60$). Therefore, as preregistered, we treat them as two independent facets measuring the feeling component of anger. The kama muta items' internal consistency was $\alpha = .88$ for the five sensation items, $\alpha = .86$ for the

two appraisal items. We computed average scores for these emotion components. Valence was only represented by one item for being moved and anger each, appraisal of anger was only measured by one item and the present study included no sensation items for measuring anger. The measure of motivation to support a candidate had three items, which showed high internal consistency ($\alpha = .94$), and we thus averaged them.

Being Moved

The analyses were carried out in SPSS, focusing on two independent variables: (1) party preference of the participant (Republican vs. Democratic), and (2) the party affiliation of the ad (Republican vs. Democratic). The dependent variables we were interested in were the strength of emotion evocation (Hypothesis 1) and the motivation to support the ad-commissioning candidate (Hypothesis 2).

Manipulation Check. Kama muta-ads, as expected, moved viewers more than the anger-ads did; for feeling, $F(1, 1166) = 388.45, p < .001, \eta_p^2 = .25$, sensation, $F(1, 1166) = 119.07, p < .001, \eta_p^2 = .09$, appraisal, $F(1, 1166) = 1780.82, p < .001, \eta_p^2 = .60$, and positive valence, $F(1, 1159) = 2688.13, p < .001, \eta_p^2 = .70$.

Hypothesis 1. Subsequently, we ran four mixed models with the independent variables video's party affiliation (Republican vs. Democratic), the participant's party preference (Republican vs. Democratic), and video ID (1 to 4, nested within the video's party affiliation), and the evocation of the four kama muta emotion components as the dependent variables. Note that we treated video as a fixed instead of a random factor because it has too few levels. As shown in Figure 1, the four independent analyses showed that the two factors viewers' party preference and the ad's party affiliation interacted significantly for all four emotion components: for feeling, $F(1, 362.0) = 48.49, p < .001, B = 2.14$, for sensation, $F(1, 357.4) = 33.89, p < .001, B = -.18$, for appraisal, $F(1, 375.3) = 12.72, p < .001, B = .61$, and for valence, $F(1, 364.6) = 33.62, p < .001, B = 1.74$, respectively. Viewers felt more moved by the ad content, felt greater physical sensation, appraised the content as

more communally sharing and perceived it as more positive when their party preference was the same as the video's party affiliation (vs. not the same). The video party had a main effect on the evocation of all four components while the viewer's party preference had no effect in all four cases (see supplementary Table 1 in Appendix).

Figure 1

Interaction effects of video's party affiliation and viewer's party preference on the four components of kama muta: feeling, sensation, positive valence, and appraisal.

Hypothesis 2. We used four mixed models with the dependent variable being the motivation to support the candidate commissioning the ad and the independent variables being the video's party affiliation (Republican vs. Democratic), the participant's party preference (Republican vs. Democratic), and video ID (1 to 4, nested). The four emotion components of kama muta (i.e., feeling, sensation, appraisal, and valence) were used as separate predictors of viewers' motivation to

support a candidate in the four models to see whether each of them predicted motivation on its own.

Before running these models, we ran one preliminary model without including the four emotion components explicitly as predictors. Here, the interaction effect of the participant's party preference and the ad's party affiliation on the motivation to support a candidate was significant, $F(1, 378.5) = 377.47, p < .001, B = 4.05$. That means, if the participant's party preference and the video's actual party affiliation matched, the motivation to support the candidate that commissioned the ad was higher. Further, the video's party affiliation had a main effect on the motivation to support, $F(1, 378.6) = 19.65, p < .001, B = -2.54$. Specifically, Democratic ads were more motivating in general ($M = 3.49$) than Republican ones ($M = 2.07$). The viewer's party preference also had a significant main effect, $F(1, 152.1) = 5.12, p = .025, B = -1.82$.

When adding the four emotion components of kama muta as predictors (in four separate models), all four predicted motivation significantly: feeling, $F(1, 377.8) = 201.42, p < .001, B = .41$; sensation, $F(1, 411.2) = 214.29, p < .001, B = .22$; appraisal, $F(1, 476.6) = 44.88, p < .001, B = .44$; and valence, $F(1, 461.1) = 15.89, p < .001, B = .40$. Viewers who felt more moved by the ad content, felt greater physical sensation, appraised the content as more communally sharing, and perceived it as more positive showed more post-ad motivation to support the candidate that commissioned the seen ad.

Additionally, kama muta appraisal and valence were such strong predictors that the interaction effect between viewers' party preference and the video's party affiliation became non-significant, $F(1, 447.0) = 2.56, p = .110$ and $F(1, 447.3) = 1.17, p = .889$, respectively. For kama muta feeling and sensation the interaction of party preference and video affiliation remained significant, $F(1, 431.0) = 110.16, p < .001, B = 3.85$ and $F(1, 444.6) = 211.24, p < .001, B = 4.11$, respectively.

Lastly, the mixed model analyses showed significance for the three-way interactions between the participant's party preference, the video's party affiliation and all four emotion components of kama muta, feeling, $F(1, 464.1) = 4.04, p = .045, B = -.18$, sensation, $F(1, 482.9) = 15.37, p < .001$,

$B = -.30$, appraisal, $F(1, 453.1) = 10.44$, $p = .001$, $p = .045$, $B = .46$, and valence, $F(1, 446.0) = 13.23$, $p < .001$, $B = .63$, respectively. That means, if a participant's party preference matched the ad's party affiliation, the effect of this interaction on the respondent's motivation to support the candidate was further enhanced by the viewer feeling especially moved by the ad content, especially strong physical sensation, appraising the content as especially communally sharing and perceiving it as especially positive. These interactions were not predicted and contradict earlier findings by Seibt et al. (2017).

Anger

The analyses were carried out in SPSS with focus on the same two factors as for kama muta analyses: (1) party preference of the participant (Republican vs. Democratic), and (2) the party affiliation of the ad (Republican vs. Democratic). One new factor we included in the analyses for anger, due to not meeting a preregistered aspect of data quality as explicated above, was the party affiliation participants had guessed for the ad (instead of the video's actual party affiliation). Identical to kama muta analyses, the dependent variables we were interested in were the strength of emotion evocation (Hypothesis 3) and the motivation to support the ad-commissioning candidate (hypothesis 4).

Manipulation Check. First of all, the anger-ads, as expected, upset viewers more than the kama muta-ads did; for anger towards commissioner, $F(1, 1166) = 250.39$, $p < .001$, $\eta_p^2 = .18$, and anger against protagonist, $F(1, 1166) = 8.26$, $p = .004$, $\eta_p^2 = .07$, appraisal, $F(1, 1166) = 930.49$, $p < .001$, $\eta_p^2 = .44$, and negative valence, $F(1, 1166) = 2486.99$, $p < .001$, $\eta_p^2 = .68$.

Hypothesis 3.

Analyses with video's guessed party affiliation. Here we used the same mixed model approach as for being moved but using the party affiliation participants guessed for an ad instead of the ad's actual affiliation. As shown in Figure 2, the four independent analyses showed that the interaction of viewers' party preference and the ad's guessed party affiliation had the expected

significant effect on three of four emotion components of anger, that is, feeling against protagonist, $F(1, 454.2) = 29.00, p < .001, B = 1.50$, feeling against commissioner, $F(1, 450.6) = 28.03, p < .001, B = -2.18$, and negative valence, $F(1, 414.8) = 9.75, p = .002, B = -1.27$, respectively. Concluding, viewers felt more upset by the featured candidate, less upset by the commissioning candidate, and perceived the ad content as more negative when their party preference was the same as the video's guessed party affiliation (vs. not the same). The interaction effect, however, was not significant for appraisal, $F < 1, p = .426$. The video party and the viewer's party preference only in few instances had a significant main effect on the evocation of all four components (see supplementary Table 2 in Appendix).

Figure 2

Interaction effects of video's guessed party affiliation and viewer's party preference on the four components of anger: feeling against protagonist, feeling against commissioner, negative valence, and appraisal.

Analyses with video's actual party affiliation. Again, we used the same mixed model

approach as for the kama muta analyses. For these analyses all cases were excluded in which the party affiliation of a shown ad was indicated incorrectly by a viewer. As shown in Figure 3, the four independent analyses showed that the interaction of viewers' party preference and the ad's actual party affiliation had the expected significant effect on three of four emotion components of anger, that is, feeling against protagonist, $F(1, 264.1) = 87.72, p < .001, B = 4.30$, feeling against commissioner, $F(1, 253.2) = 106.83, p < .001, B = -4.94$, and valence, $F(1, 208.0) = 11.78, p = .001, B = -.79$, respectively. Viewers felt more upset by the featured candidate, less upset by the commissioning candidate, and perceived the ad content as more negative when their party preference was the same as the video's party affiliation (vs. not the same). The interaction effect, however, was again not significant for appraisal, $F < 1, p = .347$. The video party had no significant main effect on the evocation of any of the four components and the viewer's party preference only had a significant main effect on the evocation of the anger feeling against the protagonist of an ad (see supplementary Table 3 in Appendix).

Figure 3

Interaction effects of guessed party affiliation and viewer's party preference on the four components of anger: feeling against protagonist, feeling against commissioner, negative valence, and appraisal.

Hypothesis 4. We used a mixed model with the dependent variable being the motivation to support the candidate commissioning the ad and the independent variables being the video's guessed or actual party affiliation (Republican vs. Democratic), the participant's party preference (Republican vs. Democratic), and video ID (1 to 8). Additionally, the four emotion components of anger (i.e., feeling against protagonist, feeling against commissioner, appraisal, and valence) were used as predictors of viewers' motivation to support a candidate.

Analyses with video's guessed party affiliation. Without including the four emotion components explicitly as predictors, the interaction effect of the participant's party preference and the ad's guessed party affiliation on the motivation to support a candidate was significant, $F(1, 471.7) = 39.68, p < .001, B = 1.62$. That means, if the participant's party preference and the video's guessed party affiliation were the same, the motivation to support the candidate that commissioned the ad was enhanced. The main effects of the video's guessed party affiliation and the viewer's party preference on the motivation to support showed as non-significant, $F < 1, p = .511$; and $F < 1,$

$p = .482$. Specifically, ads which were guessed to be Democratic were not more motivating in general than ones that were guessed to be Republican and vice versa.

Importantly, three out of four emotion components of anger were significant predictors of the motivation outcome of participants: feeling against protagonist, $F(1, 456.4) = 107.96, p < .001, B = .45$, feeling against commissioner, $F(1, 475.2) = 9.41, p = .002, B = -.31$, and valence, $F(1, 461.1) = 10.10, p = .002, B = .02$. In short, viewers that felt more upset by the candidate featured in the ad, felt less upset by the ad-commissioning candidate, and perceived the ad as more negative showed enhanced post-ad motivation to support the candidate that commissioned the seen ad. Anger appraisal did not show a significant prediction of a participant's motivation to support, $F < 1, p = .377$.

Additionally, felt anger towards the candidate that was featured in the ad (feeling against protagonist) was such a strong predictor that the interaction effect between viewers' party preference and the video's guessed party affiliation became non-significant in the process, $F < 1, p = .736$. In other words, anger completely mediated the effect that a match between the ad's source and one's own prior preference had on motivation. Further, anger against the ad-featuring candidate came out as the superior predictor in comparison to anger against the ad-commissioning candidate. Including anger feeling against protagonist and feeling against commissioner in the same analysis lead to a non-significant effect of feeling against commissioner, $F(1, 445.8) = 1.48, p = .224$, and a non-significant interaction of viewers' party preference and the video's guessed party affiliation, $F < 1, p = .428$. Feeling against protagonist held up as a significant predictor, $F(1, 460.4) = 18.42, p < .001, B = .45$. That means to a viewer's motivation to support the ad-commissioning candidate it matters how upset a participant feels by the candidate featured in the ad. The side effect of participants getting angry because they don't agree (with the ad-commissioning candidate or party) doesn't seem to matter in this case.

The mixed model analyses showed significance for the three-way interactions between the

participant's party preference, the video's guessed party affiliation and two of four emotion components of anger, that is, appraisal, $F(1, 426.3) = 6.12, p = .014, B = .42$, and negative valence, $F(1, 482.3) = 9.36, p = .002, B = .89$, respectively (for anger against protagonist: $F(1, 478.9) = 3.12, p = .078$; and against commissioner: $F < 1, p = .861$). That means, if a participant's party preference matched the ad's party affiliation, the effect of this interaction on the respondent's motivation to support the candidate was further enhanced by appraising the ad-content as especially critical and perceiving it as especially negative.

Analyses with video's actual party affiliation. Without including the four emotion components explicitly as predictors, the interaction effect of the participant's party preference and the ad's actual party affiliation on the motivation to support a candidate was significant, $F(1, 280.8) = 80.01, p < .001, B = 2.56$. That means, if the participant's party preference and the video's actual party affiliation matched, the motivation to support the candidate that commissioned the ad was enhanced. Further, the video's actual party affiliation had a main effect on the motivation to support, $F(1, 280.8) = 7.57, p = .006, B = -1.67$. Specifically, Democratic ads were more motivating in general ($M = 2.77$) than Republican ones ($M = 1.80$). The main effect of viewer's party preference was non-significant, $F(1, 111.7) = 1.05, p = .308$.

Importantly, three out of four emotion components of anger were significant predictors of the motivation outcome: feeling against protagonist, $F(1, 313.5) = 73.60, p < .001, B = .49$; feeling against commissioner, $F(1, 300.9) = 4.12, p = .043, B = -.31$; and valence, $F(1, 253.9) = 6.13, p = .014, B = .17$. Again, as for ads' guessed party affiliation, viewers that felt more upset by the candidate featured in the ad, felt less upset by the ad-commissioning candidate, and perceived the ad as more negative showed enhanced post-ad motivation to support the candidate that commissioned the seen ad. Anger appraisal did not show a significant prediction of the participant's motivation to support, $F(1, 173.6) = 1.21, p = .273$.

Additionally, and similarly to analyses with a video's guessed party affiliation, anger feeling

against protagonist was such a strong predictor that the interaction effect between viewers' party preference and the video's party affiliation showed as non-significant in the process, $F < 1$, $p = .858$. Further, feeling against protagonist came out as the superior predictor in comparison to feeling against commissioner. Including anger feeling against protagonist and feeling against commissioner in the same analysis lead to a non-significant effect of feeling against commissioner, $F(1, 260.8) = 2.23$, $p = .136$, and a non-significant interaction of viewers' party preference and the video's actual party affiliation, $F(1, 431.6) = 2.53$, $p = .113$. Feeling against protagonist held up as a significant predictor, $F(1, 276.1) = 16.17$, $p < .001$, $B = .51$. That means, identical to the findings for ads' guessed party affiliation, to predict a viewer's motivation to support the ad-commissioning candidate it is irrelevant to know how upset this participant is with the candidate that commissioned the ad, if one knows how upset a participant feels with the candidate featured in the ad.

Lastly, the mixed model analyses showed significance for the three-way interactions between the participant's party preference, the video's actual party affiliation and three of four emotion components of anger, feeling against protagonist, $F(1, 305.3) = 6.48$, $p = .011$, $B = .40$, appraisal, $F(1, 279.3) = 4.932$, $p = .03$, $B = .42$, and negative valence, $F(1, 304.7) = 7.85$, $p = .005$, $B = .89$, respectively (against commissioner: $F < 1$, $p = .933$). As in the analyses with an ad's guessed party affiliation, that means, if a participant's party preference matched the ad's party affiliation, the effect of this interaction on the respondent's motivation to support the candidate was further enhanced by feeling more anger towards the ad-featured candidate, appraising the ad-content as especially critical and perceiving it as especially negative.

Discussion

The present study was conducted before the U.S. midterm elections of 2018. Participants were shown eight ads from real political campaigns of the midterm elections. We first tested if the ads evoked stronger emotions of *being moved* and *anger* in a viewer who watched ads that support the party she or he identifies with most. Second, we tested if these evoked emotions significantly

increased the motivation to support a candidate.

The emotion *being* moved, that is all its four components, were significantly affected by the interaction effect of the party resembled by the video and the participant's party preference. If one's party affiliation matched the source of the video, participants experienced more *kama muta*. Further, for all emotion components (i.e. feeling, sensation, appraisal and valence) their evocation significantly predicted the participant's motivation to support the focused candidate and party.

For *anger* we found the same effect pattern, except for a non-significant emotional effect on and motivational effect of anger's constructed appraisal measure. The other emotion components (i.e., feelings and valence) were significantly evoked by the interaction effect of the party which commissioned the ad and the participant's party preference and these emotion evocations significantly predicted the motivation of participants to support the candidate and party that commissioned the ad.

For both emotions we find a three-way interaction effect of the video's party, the participant's party preference and the emotion evocation on the viewer's support motivation. That is, the present paper points at two moderation effects of video party and party preference. First, people are more moved and angered by videos of the party they identify with. Second, to the extent that one experiences *kama muta*, that experience motivates more strongly to support the party if it is one's own party.

What can we learn from the results? First, people get especially moved or angered by political ads that are commissioned by the party they identify with more. Second, these two evoked emotions, more specifically their different components, influence a participant's motivation to support the commissioning party and its candidate, in direct (i.e. voting for the candidate) as well as ideational (e.g. recommending the party to others) and financial terms (e.g. donating money to the party). The evoked emotions motivate a viewer more if they are evoked by a video from the party the viewer identifies with.

The present results are relevant in three ways. First, we replicated the results of Seibt and colleagues (2019), solidifying our understanding of the theoretical concept of *kama muta* and its effects in political advertisement. But we also find a significant three-way interaction of video party, viewer's party preference and emotion evocation on the participant's support motivation that was not found by Seibt et al. (2019). The reason might be that Seibt and colleagues used political ads that were longer than the videos used in the present study and that were material for the presidential election rather than a less important midterm election. Both factors might have enhanced the videos' emotional influence on viewers leaving less room for a three-way interaction effect to show as significant. Second, to our knowledge, the present findings regarding anger effects in political advertisement are the first of their kind. We confirm with our results that anger, like *kama muta*, can be constructed from different emotion components and is a motivator for political support. Third, in our study we focused on ads that were much shorter than in previous research. The present study makes the point that such short ad length is already sufficient for a significant evocation of being moved or anger in participants. On top of that, these political spots are able to facilitate a relevant influence on participants' motivation for different ways of political support. Note the level of experienced emotions is hard to compare to earlier work because we adjusted the items to make them more sensitive (i.e., to lower their item strength).

Limitations and Future Research

The appraisal of anger, as the only component in the study's array of emotion components, was neither significantly affected by political ads nor did it have an effect on people's motivation to support a political campaign. A possible explanation might be that the wording of the appraisal item did not encode the correct kind of appraisal for anger. The item we chose to measure the appraisal of critique and rejection has measured exactly that. However, to correctly display an anger appraisal we argue that the item ought to not just capture critique and rejection but *unjust* critique and rejection instead. The appraisal item ought not to ask if there is critique on and rejection of a

candidate, but if the critique or the rejection are unjust. To combat the measurement issue of the anger appraisal we propose to extend the measurement of appraisal to more than one item and to include items that do not encode the appraisal of critique and rejection (i.e., “There were people in the ad who were criticized and rejected.”) but rather the appraisal of unjust critique and rejection (i.e., “There were people in the ad who were *unjustly* criticized and rejected.”). Alternatively, or in addition, the appraisal item could tap into goal blocking and goal frustration in general, in line with prevalent notions of the anger appraisal.

While we found a significant interaction effect between the ad’s party affiliation and the viewer’s party preference on a viewer’s feeling of being moved, on a more detailed level only Democratic sympathizers show a significant difference in being moved and angered by watching Democratic vs. Republican ads. Republican sympathizers are descriptively, but not significantly, more moved and angered by Republican than Democratic ads. This might have two reasons. First, the sample size of Republican sympathizers ($N = 41$) might have been too low to provide a reasonable power for an interaction analysis to hold significant results. However, the descriptives (see Appendix, Table 1) also do not point to the conclusion that Republican sympathizers, like Democratic ones, show more emotions when watching the ad their preferred party commissioned. Second and more aligning with descriptives, there could be a difference between Republican and Democratic sympathizers or the ads themselves in being moved by political ads. However, answering such a question with satisfying certainty would need future research with higher statistical power to rule out the former shortcoming of the present study, and more control over the stimulus materials.

On the more detailed level of party sympathy we, further, find that while Republican sympathizers are more angered by attack ads against the Democratic than against the Republican party, this anger does not motivate them to support the Republican party instead of the Democratic Party (Appendix, Table 2). Again, two explanations can make sense of this phenomenon. The

statistical power was too low² or there might be an actual difference in anger-motivated political support between Republican and Democratic sympathizers. Yet again, further research has to test both assumptions.

The present study did not include sensation measures for anger. Such measures should be implemented in future research to facilitate a more extensive view on the emotion concept of anger and enhance the resolution of anger's effect pattern in political advertisement.

Lastly, we are aware of the weaknesses of motivation measures in their predictability of actual behavior. In this regard, we expect it to be difficult to completely break away from an artificial design, measuring the real voting behavior of viewers in the election; first and foremost, because of confidentiality issues connected to recording people's votes. However, looking at the different ways political support was measured in the present study, other measures of voting-related behavior are certainly possible to implement. For example, future studies might measure how many other people a participant contacts to praise a candidate or how much a candidate donates to the ad-commissioning candidate after having seen a respective political spot. Behavioral measures are central to understand the range of effects emotions have on people's voting behavior.

Practical Implications

The interaction effect of the participant's and the video's party affiliation held up even when participants guessed an ad's affiliation. That is, for a relevant emotional influence it did not matter if the party affiliation that matched the viewer's preference was an actual or a constructed one. This has several practical implications for advertisement for political campaigns. For instance, to just name one, campaign ads would do well to unambiguously communicate their political affiliation to prevent unwillingly feeding the support of political competitors.

On another practical note, in regard to policy making, the question arises how powerful and, consequently, how dangerous emotionalized political ads can be for the voter. If behavioral studies

² Note that in this case the descriptives, indeed, point in the direction of the hypothesized effect.

support the present findings of motivational effects on voter support, underpinning the manipulative potential of emotionalized political ads, multiple practical questions would urgently call for answers. For instance, should a political ad's emotionalizing potential be explicitly evaluated and communicated? We can obviously not give answers from our current results, but any democratic process should be aware of the power of both heartwarming and attack ads to persuade through emotions.

Finally, the moderation of an ad's impact on emotions, and the subsequent moderation of that emotions's impact on motivation by the source of the video confirms that ads in a modern political landscape actually have little effect in terms of winning over voters from the other side. Instead, they have impact on constituents who already identify to support through donations, and to turn out to the ballot box.

Concluding remarks

Our findings provide a glimpse into how the emotional side of political advertisement works. The present paper finds a double moderation of a video's party affiliation and the viewer's party preference. If the party that commissions the political ad fits the viewer's party preference the video evokes more kama muta and anger, depending on the video, in the viewer than if video party and party preference do not fit. Importantly, this same fit then also plays a role for the effect an evoked emotion has on the motivation of the viewer to support a candidate or party directly (i.e., voting for the candidate), ideationally (e.g., recommending the party to others) and financially (e.g., donating money to the party). That is, the fit between the video's party affiliation and the viewer's party preference matters for the emotional as well as, subsequently, the motivational influence of a political ad. In conclusion, the present findings show that political ads mainly influence voting turn out and alternative political support. However, they are less effective in changing people's minds and overtaking voters from the other political side.

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Author Contribution

Both authors jointly planned the study and the analyses. DJG created the materials, ran the study, analysed the data, and wrote the first draft. TWS revised materials, checked analyses, and revised the manuscript.

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Conflict of Interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Data Availability Statement

All the presentation material, participant data, and analyses can be found on this paper's project page on OSF, Open Science Framework (<https://osf.io/v3ecg/>).

Appendix

Supplementary Table 1

Main effects of video party and participant's party preference on the four components of kama muta: feeling, sensation, appraisal, and positive valence.

	Feeling	Sensation	Appraisal	Valence
Video party	$F(1, 362.0) = 42.57$ $p < .001$	$F(1, 357.5) = 31.76$ $p < .001$	$F(1, 357.3) = 35.07$ $p < .001$	$F(1, 364.6) = 21.98$ $p < .001$
Party preference	$F(1, 152.96) < 1$ $p = .434$	$F(1, 145.1) = 2.17$ $p = .143$	$F(1, 161.6) < 1$ $p = .672$	$F(1, 150.2) < 1$ $p = .934$

Supplementary Table 2

Main effects of video party and participant's party preference on the four components of anger: feeling against commissioner and protagonist, appraisal, and negative valence.

	Feeling against protagonist	Feeling against commissioner	Appraisal	Valence
Video party	$F(1, 454.2) = 3.88$ $p = .050$	$F(1, 450.7) < 1$ $p = .889$	$F(1, 446.5) < 1$ $p = .619$	$F(1, 414.8) = 4.36$ $p = .037$
Party preference	$F(1, 144.2) = 1.92$ $p = .168$	$F(1, 143.1) = 9.51$ $p = .002$	$F(1, 141.5) < 1$ $p = .618$	$F(1, 140.0) = 1.53$ $p = .219$

Supplementary Table 3

Main effects of guessed video party and participant's party preference on the four components of anger: feeling against commissioner and protagonist, appraisal, and negative valence.

	Feeling against protagonist	Feeling against commissioner	Appraisal	Valence
Guessed video party	$F(1, 362.0) < 1$ $p = .702$	$F(1, 253.2) < 1$ $p = .928$	$F(1, 220.2) = 1.74$ $p = .188$	$F(1, 208.1) = 2.92$ $p = .089$
Party preference	$F(1, 152.96) = 1.39$ $p = .240$	$F(1, 118.4) = 7.41$ $p = .007$	$F(1, 124.3) < 1$ $p = .931$	$F(1, 124.9) = 2.85$ $p = .094$

SPSS Syntax

*MANIPULATION CHECK before Hypothesis 1.

*kama muta main effects.

filter off.

UNIANOVA km_feel BY video_emo

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/METHOD=SSTYPE(3)
/INTERCEPT=INCLUDE
/PRINT ETASQ DESCRIPTIVE
/CRITERIA=ALPHA(.05)
/DESIGN=video_emo.
```

*kama muta feeling component.

UNIANOVA km_sen BY video_emo

```
/METHOD=SSTYPE(3)
/INTERCEPT=INCLUDE
/PRINT ETASQ DESCRIPTIVE
/CRITERIA=ALPHA(.05)
/DESIGN=video_emo.
```

*kama muta sensation component.

UNIANOVA km_appr BY video_emo

```
/METHOD=SSTYPE(3)
/INTERCEPT=INCLUDE
/PRINT ETASQ DESCRIPTIVE
/CRITERIA=ALPHA(.05)
/DESIGN=video_emo.
```

*kama muta appraisal component.

UNIANOVA val_1 BY video_emo

```
/METHOD=SSTYPE(3)
```

/INTERCEPT=INCLUDE

/PRINT ETASQ DESCRIPTIVE

/CRITERIA=ALPHA(.05)

/DESIGN=video_emo.

*kama muta valence component.

*HYPOTHESIS 1.

*tempfilter1: Only kama muta videos.

filter by tempfilter1.

MIXED km_feel BY video_party vote_1 video

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=video_party vote_1 video_party*vote_1 video(video_party) vote_1*video(video_party) |

SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(video_party*vote_1)

/EMMEANS=TABLES(vote_1*video_party) compare (video_party) adj(lsd).

*Evocation of kama muta feeling.

MIXED km_sen BY video_party vote_1 video

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=video_party vote_1 video(video_party) video_party*vote_1 vote_1*video(video_party)|

SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(video_party*vote_1)

/EMMEANS=TABLES(vote_1*video_party) compare (video_party) adj(lsd).

*Evocation of kama muta sensation.

MIXED km_appr BY video_party vote_1 video

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=video_party vote_1 video_party*vote_1 video(video_party) vote_1*video(video_party) |

SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(video_party*vote_1)

/EMMEANS=TABLES(vote_1*video_party) compare (video_party) adj(lsd).

*Evocation of kama muta appraisal.

```

MIXED val_1 BY video_party vote_1 video

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=video_party vote_1 video_party*vote_1 video(video_party) vote_1*video(video_party) |

SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(video_party*vote_1)

/EMMEANS=TABLES(vote_1*video_party) compare (video_party) adj(lsd).

*Evocation of kama muta valence.

```

*HYPOTHESIS 2.

*tempfilter1: Only kama muta videos.

filter by tempfilter1.

```

MIXED mot BY video_party vote_1 video

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

```

```

/FIXED=video_party vote_1 video_party*vote_1 video(video_party) vote_1*video(video_party) |
SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(video_party*vote_1)

/EMMEANS=TABLES(vote_1*video_party) compare (video_party) adj(lsd).

```

*Motivation by video party and viewer's preference.

```

MIXED mot BY video_party vote_1 video WITH km_feel

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=video_party vote_1 video_party*vote_1 video(video_party) vote_1*video(video_party)

km_feel km_feel*video_party km_feel*vote_1 km_feel*video_party*vote_1 | SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(video_party*vote_1)

/EMMEANS=TABLES(vote_1*video_party) compare (video_party) adj(lsd).

```

*Motivation by video party and viewer's preference, including kama muta feeling as covariate.

```

MIXED mot BY video_party vote_1 video WITH km_sen

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

```


ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=video_party vote_1 video_party*vote_1 video(video_party) vote_1*video(video_party)

km_sen km_sen*video_party km_sen*vote_1 km_sen*video_party*vote_1 | SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(video_party*vote_1)

/EMMEANS=TABLES(vote_1*video_party) compare (video_party) adj(lsd).

*Motivation by video party and viewer's preference, including kama muta sensation as covariate.

MIXED mot BY video_party vote_1 video WITH km_appr

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.0000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=video_party vote_1 video_party*vote_1 video(video_party) vote_1*video(video_party)

km_appr km_appr*video_party km_appr*vote_1 km_appr*video_party*vote_1 |

SSTYPE(3)

/METHOD=REML

/PRINT= CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(video_party*vote_1)

/EMMEANS=TABLES(vote_1*video_party) compare (video_party) adj(lsd).

*Motivation by video party and viewer's preference, including kama muta appraisal as covariate.

MIXED mot BY video_party vote_1 video WITH val_1

```

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=video_party vote_1 video_party*vote_1 video(video_party) vote_1*video(video_party)

val_1 val_1*video_party val_1*vote_1 val_1*video_party*vote_1 | SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(video_party*vote_1)

/EMMEANS=TABLES(vote_1*video_party) compare (video_party) adj(lsd).

*Motivation by video party and viewer's preference, including kama muta valence as covariate.

```

*_____

*ANGER ANALYSES:

*MANIPULATION CHECK before Hypothesis 3.

*Anger main effects.

filter off.

UNIANOVA anger_feel_1 BY video_emo

```
/METHOD=SSTYPE(3)
```

```
/INTERCEPT=INCLUDE
```

```
/PRINT ETASQ DESCRIPTIVE
```

```
/CRITERIA=ALPHA(.05)
```

```
/DESIGN=video_emo.
```

*anger feeling component against ad commissioner.

UNIANOVA anger_feel_2 BY video_emo

```
/METHOD=SSTYPE(3)
```

```
/INTERCEPT=INCLUDE
```

```
/PRINT ETASQ DESCRIPTIVE
```

```
/CRITERIA=ALPHA(.05)
```

```
/DESIGN=video_emo.
```

*anger feeling component against ad protagonist.

UNIANOVA appr_3 BY video_emo

```
/METHOD=SSTYPE(3)
```

```
/INTERCEPT=INCLUDE
```

```
/PRINT ETASQ DESCRIPTIVE
```

```
/CRITERIA=ALPHA(.05)
```

```
/DESIGN=video_emo.
```

*anger appraisal component.

UNIANOVA val_2 BY video_emo

```
/METHOD=SSTYPE(3)
```

/INTERCEPT=INCLUDE

/PRINT ETASQ DESCRIPTIVE

/CRITERIA=ALPHA(.05)

/DESIGN=video_emo.

*anger valence component.

*HYPOTHESIS 3.

*ANGER WITH PARTY GUESS.

*tempfilter: Only anger videos, guessed party affiliation of the ads.

filter by tempfilter.

MIXED anger_feel_1 BY partyguess vote_1 video

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=partyguess vote_1 partyguess*vote_1 video(partyguess) vote_1*video(partyguess) |

SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(partyguess*vote_1)

/EMMEANS=TABLES(vote_1*partyguess) compare (partyguess) adj(lsd).

*Evocation of anger feeling against ad commissioner.

MIXED anger_feel_2 BY partyguess vote_1 video

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=partyguess vote_1 partyguess*vote_1 video(partyguess) vote_1*video(partyguess) |

SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(partyguess*vote_1)

/EMMEANS=TABLES(vote_1*partyguess) compare (partyguess) adj(lsd).

*Evocation of anger feeling against ad protagonist.

MIXED appr_3 BY partyguess vote_1 video

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=partyguess vote_1 partyguess*vote_1 video(partyguess) vote_1*video(partyguess) |

SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(partyguess*vote_1)

/EMMEANS=TABLES(vote_1*partyguess) compare (partyguess) adj(lsd).

*Evocation of anger appraisal.

MIXED val_2 BY partyguess vote_1 video

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=partyguess vote_1 partyguess*vote_1 video(partyguess) vote_1*video(partyguess) |

SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(partyguess*vote_1)

/EMMEANS=TABLES(vote_1*partyguess) compare (partyguess) adj(lsd).

*Evocation of anger valence.

*HYPOTHESIS 3.

*ACTUAL PARTY AFFILIATION.

*tempfilter2: Only anger videos, actual party affiliation of the ads.

filter by tempfilter2.

MIXED anger_feel_1 BY partyguess vote_1 video

```

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=partyguess vote_1 partyguess*vote_1 video(partyguess) vote_1*video(partyguess) |

SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(partyguess*vote_1)

/EMMEANS=TABLES(vote_1*partyguess) compare (partyguess) adj(lsd).

*Evocation of anger feeling against ad commissioner.

```

MIXED anger_feel_2 BY partyguess vote_1 video

```

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=partyguess vote_1 partyguess*vote_1 video(partyguess) vote_1*video(partyguess) |

SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(partyguess*vote_1)

/EMMEANS=TABLES(vote_1*partyguess) compare (partyguess) adj(lsd).

*Evocation of anger feeling against ad protagonist.

```

MIXED appr_3 BY partyguess vote_1 video

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=partyguess vote_1 partyguess*vote_1 video(partyguess) vote_1*video(partyguess) |

SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(partyguess*vote_1)

/EMMEANS=TABLES(vote_1*partyguess) compare (partyguess) adj(lsd).

*Evocation of anger appraisal.

MIXED val_2 BY partyguess vote_1 video

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=partyguess vote_1 partyguess*vote_1 video(partyguess) vote_1*video(partyguess) |

SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(partyguess*vote_1)

/EMMEANS=TABLES(vote_1*partyguess) compare (partyguess) adj(lsd).

*Evocation of anger valence.

*HYPOTHESIS 4.

*GUESSED PARTY AFFILIATION.

*tempfilter: Only anger videos, guessed party affiliation of the ads.

filter by tempfilter.

MIXED mot BY partyguess vote_1 video

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=partyguess vote_1 partyguess*vote_1 video(partyguess) vote_1*video(partyguess) |

SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(partyguess*vote_1)

/EMMEANS=TABLES(vote_1*partyguess) compare (partyguess) adj(lsd).

*Motivation by video party and viewer's preference.

MIXED mot BY partyguess vote_1 video with anger_feel_1

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=partyguess vote_1 partyguess*vote_1 video(partyguess) vote_1*video(partyguess)

anger_feel_1 anger_feel_1*partyguess anger_feel_1*vote_1

anger_feel_1*partyguess*vote_1 | SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(partyguess*vote_1)

/EMMEANS=TABLES(vote_1*partyguess) compare (partyguess) adj(lsd).

*Motivation by video party and viewer's preference, including anger feeling against ad commissioner as covariate.

MIXED mot BY partyguess vote_1 video with anger_feel_2

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.0000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=partyguess vote_1 partyguess*vote_1 video(partyguess) vote_1*video(partyguess)

anger_feel_2 anger_feel_2*partyguess anger_feel_2*vote_1

anger_feel_2*partyguess*vote_1 | SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(partyguess*vote_1)

/EMMEANS=TABLES(vote_1*partyguess) compare (partyguess) adj(lsd).

*Motivation by video party and viewer's preference, including anger feeling against ad protagonist as covariate.

MIXED mot BY partyguess vote_1 video with appr_3

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=partyguess vote_1 partyguess*vote_1 video(partyguess) vote_1*video(partyguess)

appr_3 appr_3*partyguess appr_3*vote_1 appr_3*partyguess*vote_1 | SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(partyguess*vote_1)

/EMMEANS=TABLES(vote_1*partyguess) compare (partyguess) adj(lsd).

*Motivation by video party and viewer's preference, including anger appraisal as covariate.

MIXED mot BY partyguess vote_1 video with val_2

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=partyguess vote_1 partyguess*vote_1 video(partyguess) vote_1*video(partyguess) val_2

val_2*partyguess val_2*vote_1 val_2*partyguess*vote_1 | SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(partyguess*vote_1)

/EMMEANS=TABLES(vote_1*partyguess) compare (partyguess) adj(lsd).

*Motivation by video party and viewer's preference, including anger valence as covariate.

```

MIXED mot BY partyguess vote_1 video with anger_feel_1 anger_feel_2

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=partyguess vote_1 partyguess*vote_1 video(partyguess) vote_1*video(partyguess)

anger_feel_1 anger_feel_1*partyguess anger_feel_1*vote_1

anger_feel_1*partyguess*vote_1

anger_feel_2 anger_feel_2*partyguess anger_feel_2*vote_1 anger_feel_2*partyguess*vote_1

anger_feel_2*partyguess*vote_1*anger_feel_1| SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(partyguess*vote_1)

/EMMEANS=TABLES(vote_1*partyguess) compare (partyguess) adj(lsd).

```

*Motivation by video party and viewer's preference, including anger feeling against ad protagonist and anger feeling against ad commissioner as covariates.

*HYPOTHESIS 4.

*ACTUAL PARTY AFFILIATION.

*tempfilter2: Only anger videos, actual party affiliation of the ads.

filter by tempfilter2.

```

MIXED mot BY video_party vote_1

```

```

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=video_party vote_1 video_party*vote_1| SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(video_party*vote_1)

/EMMEANS=TABLES(vote_1*video_party) compare (video_party) adj(lsd).

```

*Motivation by video party and viewer's preference.

MIXED mot BY video_party vote_1 video WITH anger_feel_1

```

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=video_party vote_1 video_party*vote_1 video(video_party) vote_1*video(video_party)

anger_feel_1 anger_feel_1*video_party anger_feel_1*vote_1

anger_feel_1*video_party*vote_1 | SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(video_party*vote_1)

/EMMEANS=TABLES(vote_1*video_party) compare (video_party) adj(lsd).

```

*Motivation by video party and viewer's preference, including anger feeling against ad commissioner as covariate.

```

MIXED mot BY video_party vote_1 video WITH anger_feel_2

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=video_party vote_1 video_party*vote_1 video(video_party) vote_1*video(video_party)

anger_feel_2 anger_feel_2*video_party anger_feel_2*vote_1

anger_feel_2*video_party*vote_1 | SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(video_party*vote_1)

/EMMEANS=TABLES(vote_1*video_party) compare (video_party) adj(lsd).

*Motivation by video party and viewer's preference, including anger feeling against ad protagonist

as covariate.

```

```

MIXED mot BY video_party vote_1 video WITH appr_3

/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)

HCONVERGE(0,

ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)

/FIXED=video_party vote_1 video_party*vote_1 video(video_party) vote_1*video(video_party)

appr_3 appr_3*video_party appr_3*vote_1 appr_3*video_party*vote_1 | SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

```

```
/EMMEANS=TABLES(video_party*vote_1)
```

```
/EMMEANS=TABLES(vote_1*video_party) compare (video_party) adj(lsd).
```

*Motivation by video party and viewer's preference, including anger appraisal as covariate.

```
MIXED mot BY video_party vote_1 video WITH val_2
```

```
/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)
```

```
HCONVERGE(0,
```

```
ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)
```

```
/FIXED=video_party vote_1 video_party*vote_1 video(video_party) vote_1*video(video_party)
```

```
val_2 val_2*video_party val_2*vote_1 val_2*video_party*vote_1 | SSTYPE(3)
```

```
/METHOD=REML
```

```
/PRINT=CORB SOLUTION TESTCOV desc
```

```
/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)
```

```
/EMMEANS=TABLES(video_party*vote_1)
```

```
/EMMEANS=TABLES(vote_1*video_party) compare (video_party) adj(lsd).
```

*Motivation by video party and viewer's preference, including anger valence as covariate.

```
MIXED mot BY video_party vote_1 video with anger_feel_1 anger_feel_2
```

```
/CRITERIA=CIN(95) MXITER(100) MXSTEP(10) SCORING(1) SINGULAR(0.000000000001)
```

```
HCONVERGE(0,
```

```
ABSOLUTE) LCONVERGE(0, ABSOLUTE) PCONVERGE(0.000001, ABSOLUTE)
```

```
/FIXED=video_party vote_1 video_party*vote_1 video(video_party) vote_1*video(video_party)
```

```
anger_feel_1 anger_feel_1*video_party anger_feel_1*vote_1
```

```
anger_feel_1*video_party*vote_1
```

anger_feel_2 anger_feel_2*video_party anger_feel_2*vote_1 anger_feel_2*video_party*vote_1

anger_feel_2*video_party*vote_1*anger_feel_1| SSTYPE(3)

/METHOD=REML

/PRINT=CORB SOLUTION TESTCOV desc

/RANDOM=INTERCEPT | SUBJECT(ResponseId) COVTYPE(VC)

/EMMEANS=TABLES(video_party*vote_1)

/EMMEANS=TABLES(vote_1*video_party) compare (video_party) adj(lsd).

*Motivation by video party and viewer's preference, including anger feeling against ad protagonist
and anger feeling against ad commissioner as covariates.