

ORIGINAL RESEARCH REPORT

No Additional Evidence that Proximity to the July 4th Holiday Affects Affective Polarization

Mark J. Brandt and Felicity M. Turner-Zwinkels

One promising approach for reducing affective polarization is priming a shared American identity and one promising event to prime that identity is the 4th of July. Prior work showed that proximity to the 4th of July reduced affective polarization. We conceptually replicated this study using a 9-wave longitudinal design in 2019. We found no short-term or long-term effects of the 4th of July on social distance from partisan and ideological ingroups or outgroups. Notably, our within-subjects design was able to identify the existence of individual differences in social distance trajectories across time, but there were not individual differences in short-term changes in social distance in close proximity to the 4th of July. Additional analyses, did not find consistent predictors of these individual differences, suggesting a clear gap for future studies. Although priming a shared American identity may be effective, these findings suggest that the salutary effects of the 4th of July holiday do not emerge in 2019.

Keywords: Affective polarization; political prejudice; common ingroup identity; July 4th

Over the last decades, affective polarization has increased in the United States (Iyengar & Krupenkin, 2018). People are likely to express dislike towards and a preference for social distance from both partisan and ideological outgroups (Brandt & Crawford, 2020; Iyengar et al. 2019; Mason 2018), resulting in both partisan and ideological manifestations of affective polarization. Affective polarization is the result of people's identification with their political party or particular ideological labels (e.g., liberal or conservative; Iyengar et al., 2019; Mason, 2018). Like any identification process, people who identify with their partisan or ideological ingroups are likely to sort their world into ingroups and outgroups based on these identities (Tajfel, 1981; Tajfel & Turner 1979). Driven partly by the need for positive identity, people then tend to favor their ingroup over outgroups. This is especially the case for competitive outgroups like political rivals where ingroup preference can also entail an outgroup dislike (Brewer, 1991; Mullen, Brown, & Smith 1992; Voci, 2006).

One promising approach for reducing affective polarization is to remind people of their shared American identity with partisan and ideological opponents (Levendusky, 2018; Riek, Mania, Gaertner, McDonald, & Lamoreaux, 2010). People have multiple identities that can be hierarchically organized (e.g., as an American, as an American woman, as an American woman political psychologist). If it is possible to make a superordinate identity salient (within which both the ingroup and

outgroup belong) that allows people to recategorize their political outgroups as part of an ingroup (Gaertner and Dovidio 2000). This emphasizes what is positive and shared between "us", and could consequently reduce affective polarization. One such identity in the United States is people's American identity (Huddy & Khatib 2007) which can encompass both American political ingroups and outgroups. When participants are primed with their American identity they report less negative views of the partisan outgroup (Levendusky 2018). Such primes do not make people more positive about the partisan ingroup, suggesting that the experimental treatment does not just make people more positive about all groups in general. Overall, it appears that priming American's American identity reduces affective polarization by changing people's perceptions of the partisan outgroup.

July 4th Holiday, Original

To complement experimental studies, Levendusky (2018) examined if proximity to the July 4th holiday reduced affective partisan polarization. The idea was that the celebration of the July 4th holiday involves reminders of people's American identities. This should increase the salience of the American identity and therefore reduce affective polarization between party outgroups. This was tested using data from the 2008 National Annenberg Election Study's online panel (N ~ 6,000). Participants in this panel were interviewed about their perception of the opposing party's nominee (Obama or McCain) on a feeling thermometer. Because interview day was randomly determined between participants, this allowed Levendusky to test if proximity to the holiday reduced

affective polarization. He found, using a variety of operationalizations of “close,” that closer proximity to the holiday reduced dislike of the outparty candidate (effect size ranged between 1.72 and 3.63 points on a 100-point scale). Mirroring the experimental effects, proximity to the July 4th holiday did not affect people’s evaluations of the inparty candidate. This result suggests that the nearer the July 4th holiday was, the more strongly the American identity can be primed, and this reduces affective polarization. This highlights a naturally and annually occurring setting in which the superordinate American identity can be made salient. Moreover, it suggests that the July 4th may be a unique setting of relative partisan understanding.

The Current Study

We aimed to conceptually replicate Levendusky (2018) for the July 4th holiday in 2019. We use longitudinal data to gain *within subjects* comparisons and allow for more detailed assessment of the impact of this holiday on affective polarization. This allows us to identify different time trends and individual differences surrounding the holiday and its relationships with affective polarization. We adopt methods from personality psychology that have aimed to understand how life events affect the development of personality, life satisfaction, and other constructs. We follow the example of Denissen, Luhmann, Chung, and Bleidorn (2019) who studied the effect of life events on personality (e.g., the effect of marriage on life satisfaction). Their models help distinguish between linear changes as one approaches the July 4th, a linear

effect as the July 4th recedes into the past, a stable change following the July 4th, short term changes around the July 4th, and testing effects (i.e. repeated exposure to the survey; see **Table 1**). This will help us assess if the influence of the July 4th holiday is because of people’s experience on the holiday (e.g., effects of variables indicating short term changes, stable changes, or linear effects post July 4th), their anticipation of the holiday (e.g., effects of linear changes as one approaches July 4th), because of repeated exposure to the survey (e.g., testing effects), or some combination.

Based on Levendusky’s (2018) theorizing, we would expect that negative evaluations of the out-party and out-ideology would decrease on or near July 4th (i.e. significant effects for the short term changes in **Table 1**). Levendusky’s theorizing could also be interpreted as predicting less negative evaluations of the out-party and out-ideology as July 4th approaches (i.e. linear anticipation from **Table 1**) and that negative evaluations of the out-party and out-ideology increases as the July 4th recedes (linear change post July 4th from **Table 1**). We test these possibilities.

Levendusky (2018) reports no clear differences between Republicans and Democrats in their analyses; however, there may be individual differences that do not map onto this particular moderator variable. An additional benefit of the longitudinal design, that is not available in typical between-subject designs, is that we will be able to estimate the *existence* of individual differences in response to the July 4th holiday by testing if the effects of the time varying variables are significantly different across

Table 1: Potential time-varying effects.

Time Varying Effect	What it Represents	Coding
Linear Anticipation	Anticipatory changes in affective polarization from the start of the study as the July 4 th approaches	Time leading up to the July 4 th , scaled in weeks. Values prior to July 4 th have negative values and all values post July 4 th have a 0.
Linear Change Post July 4 th	Changes in affective polarization as the July 4 th holiday becomes further away until the end of the study	Time since the July 4 th , scaled in weeks. All values prior to July 4 th have a 0 and values post July 4 th have positive values.
Post July 4 th Stable change	Mean-level change in affective polarization from after the July 4 th holiday until the end of the study	Coded 1 after July 4 th and 0 otherwise
Short term changes	Mean level change in affective polarization lasting for a limited amount of time. We use 4 versions to capture different windows around the holiday.	<ul style="list-style-type: none"> • firstDay: Changes on July 4th only. Coded 1 on July 4th or 0 otherwise • firstWeek: Changes starting on July 4th and lasting for 1 week. Coded 1 for July 4th – July 10th and 0 otherwise. • withinDay: Changes that occur within one day of July 4th. Coded 1 for the 3rd, 4th, and 5th and 0 otherwise. • withinWeek: Changes that occurred within one week of July 4th (July 3rd to July 10th in the data available). Coded 1 for July 3rd-July 10th and 0 otherwise.
Testing Effects	Changes in affective polarization associated with the number of waves completed.	The number of waves participants have completed since the start of the study, ranging from 0 to 8

people (i.e. the random slopes are significant; Bolger et al. 2019; Denissen et al. 2019; Whitsett and Shoda 2014). When there are individual differences, our study included a number of additional variables that might serve as moderators, including strength of identification, party and ideological identification, perceived economic and value threat, political interest, the importance of the July 4th holiday, and demographic variables. In this way, we are able to test for the mere presence of individual differences and test a suite of possible moderators.

In addition, our study included measures of affective polarization for both party identification and ideological identification. The original work on the July 4th holiday only examined party identification; however, affective polarization also occurs for ideological identification and is thought to occur for similar theoretical reasons (e.g., Mason 2018; Brandt & Crawford, 2020). Therefore, we believe that the theoretical rationale would predict similar results for both types of political identification, although the analysis of party identification is the most similar to the original work. People who think that ideological affective polarization occurs for different reasons than partisan affective polarization, would not predict similar results for both types of political identification. We also included evaluations of moderates as an exploratory measure; we had no specific hypotheses.

The data we analyze for the project are from a year-long longitudinal study. This study started on 8 May 2019 and ended on 29 April 2020, surveying the same participants every 2 weeks for a year. Crucially, the study overlaps with the July 4th holiday and it includes measures of party identification, ideological identification, and affective polarization. By adopting this study design, we are able to retest Levendusky's (2018) hypothesis about the proximity to the July 4th holiday, extend his analysis to ideological identification, identify the mere existence of individual differences, and assess several moderators that may account for any individual differences.

Method

Preregistration

We used data from our year-long longitudinal study. This study was conducted between 8 May 2019 and 29 April 2020, surveying the same participants every 2 weeks for a year. There are three pre-registrations associated with this paper. First, the method for the entire year-long study is preregistered at this link: <https://osf.io/p2eju/>. This preregistration was fixed as read-only before any data were collected. Second, the measures and analysis for this specific study are preregistered at this link: <https://osf.io/t3gf5>. This preregistration was fixed as read-only after the start of data collection, but before Wave 4 of data collection and before any other analyses were conducted with the data. Third, due to a minor error in adding a measure to Wave 4 (see below), the preregistration for this specific study was amended and is at this link: <https://osf.io/xfgrq>. This preregistration was fixed as read-only after the start of Wave 4 data collection and before any analyses were conducted on the data.

The Sample

Participants were recruited via Prolific (Palan and Schitter, 2018). The first wave recruited 552 participants who voted for Clinton, Trump, or someone else/did not vote in proportion to the results of the 2016 presidential election. It was open until 550 participants were collected (with 2 extra unintentional participants). Subsequent waves were open for 1 week and participants could complete the wave any time during that week. We analyzed the data collected between 8 May and 4 September. This included the first four waves before the holiday, Wave 5 which overlaps with the holiday, and the four waves following the holiday. The response rates for these waves ranged from 79% (Wave 9) to 92% (Wave 2). After removing participants without clear partisan or ideological identifications (see below), our sample consisted of 363 participants (M age = 36.4, SD age = 12.8, 184 women, 178 men, 1 reporting another option). Participants were primarily white ($n = 290$) and a plurality had bachelor degrees ($n = 145$). The most commonly selected income range was \$50,000 to \$74,999 ($n = 76$).

Preregistered measures

There are many measures in the study (see materials here: <https://osf.io/x94rc/>). We focus only on those relevant to this research question. All of the measures we used are in Table S1 in the supplemental materials.

Social distance

The primary outcome variables used to assess affective polarization are people's self-reported social distance from the political outgroup. Levendusky (2018) originally operationalized affective polarization as a feeling thermometer towards the in/outgroup presidential candidate. Although not identical to Levendusky's measure, we apply social distance as a common measure of affective polarization in the literature (e.g., Iyengar et al., 2012). It is a common measure of prejudice in the social psychology literature more broadly (Correll, Park, Judd, & Wittenbrink, 2010), correlates well with other potential measures of affective polarization (e.g., feeling thermometers; Crawford et al., 2017), and often shares predictors with other measures of affective polarization (Druckman & Levendusky 2019; Garrett & Bankert, 2020; Mason 2018).¹ We looked at social distance as people's self-reported willingness to be friends with people from ideological outgroups (i.e. liberals or conservatives) and partisan outgroups (i.e. Democrats or Republicans). We first reverse scored the social distance items from Table S1, so that higher scores indicated more social distance. We coded observations of "Don't know" or "I haven't thought much about it" as missing data. All social distance measures were standardized by their standard deviation. This rescaling was not preregistered.

Ideological outgroups were determined by their placement on the 1–7 ideological identification item. Ideological identification was asked at all waves. We used data from the first four waves (i.e. the 4 waves before the July 4th holiday) to categorize participants. People who state a 1–3 (i.e. are on the liberal side of the

measure) over all of Waves 1–4 have conservatives as their ideological outgroup. People who state 5–7 (i.e. are on the conservative side of the measure) over all of Waves 1–4 have liberals as their ideological outgroup. People who switch allegiance, state 4 (i.e. moderate), “Don’t know,” or “I haven’t thought much about it” were excluded from this analysis (n included = 330).

Partisan outgroups were determined by their placement on the 1–7 partisan identification item. Partisan identification is asked at all waves. We used data from the first four waves (i.e. the 4 waves before the July 4th holiday) to categorize participants. People who state a 1–3 (i.e. are on the Democrat side of the measure) over all of Waves 1–4 have Republicans as their partisan outgroup. People who state 5–7 (i.e. are on the Republican side of the measure) over all of Waves 1–4 have Democrats as their ideological outgroup. People who switch allegiance, state 4 (i.e. independent), “Don’t know,” or “I haven’t thought much about it” were excluded from this analysis (n included = 314).

We test if proximity to the July 4th holiday improves attitudes towards the ingroup as well (Levendusky’s [2018] theoretical analysis would not expect such an effect). We test this using measures of social distance towards ideological and partisan ingroups. Ingroups were determined using the same strategy as described above. As a further exploratory test, we examined if proximity to the holiday influences attitudes towards moderates. For this analysis, people who state 4, “Don’t know,” or “I haven’t thought much about it” on the ideological identification measure were excluded from this analysis.

Preregistered analytic strategy

We must depart from Levendusky (2018) analytic strategy because of differences in design. His design is essentially a between-subjects design where proximity to the holiday is randomly assigned. Our design is a within-subjects design and is conceptually similar to studies that test how life events (e.g., marriage, divorce, unemployment) affect personality or life satisfaction. In our study, the life event is the July 4th holiday and the outcome is social distance. Because participants did not all complete the Wave 2 though Wave 9 surveys on the same day, we have a range of distances from the July 4th holiday. See Figure S1 in the supplemental materials for sample sizes for partisan and ideological affective polarization analyses across the study period.

To test the hypothesis that proximity to the July 4th holiday would be associated with less social distance from political outgroups, we used the analytic strategy of Denissen, Luhmann, Chung, and Bleidorn (2019). We modified their models to help distinguish between several different types of effects (see **Table 1**). A description of the factors we consider are in **Table 1**. The exact coding for each factor is in Table S2 in the supplemental materials.

Four time-varying factors were included in every model.

- Linear Anticipation: This indexes the linear change as one approaches July 4th.
- Post July 4th Stable Change: this indexes stable change

(for the duration of the study) following July 4th.

- Linear Change Post July 4th: This indexes the linear change as one moves away from July 4th.
- Testing effects: This indexes the number of waves that have occurred since the start of the study.

We also aimed to assess short-term changes in social distance, consistent with Levendusky’s (2018) observation that the analyses for data closest to the July 4th holiday had the strongest effects. Because it is not obvious how close people need to be to the holiday for American identity to be primed, we follow Levendusky’s lead and estimate additional, separate models with indicators representing different windows around July 4th. Each of these time-varying factors estimating short-term changes will be included in separate models.

- July 4th: This indexes changes on July 4th only.
- 1 Week Post July 4th: This indexes changes starting on July 4th and lasting for 1 week.
- Within 1 Day of July 4th: This indexes changes that occur within one day of July 4th (i.e. the 3rd, 4th, and 5th).
- Within 1 Week of July 4th: This indexes changes that occurred within one week of July 4th (3 July to 10 July in the data available to us).²

Observations were nested within participants, which were treated as a random effect.³ All of the time-varying predictors were treated as fixed effects. Across all analyses, we use $p < .005$ as our preregistered alpha level (Benjamin et al. 2018).⁴

Results

Does Proximity to the July 4th Affect Affective Polarization

The mean social distance for each date with data are in **Figure 1**. To estimate the effects of the July 4th holiday, we estimated 20 models (5 outcomes: [social distance out-ideology, social distance out-party, social distance in-ideology, social distance in-party, social distance moderates] \times 4 individually-entered time-varying factors [July 4th, 1 Week Post July 4th, Within 1 Day of July 4th, Within 1 Week of July 4th]). Across models, the number of participants range from 314 to 330 ($M = 323.6$) and the number of observations ranged from 2598 to 2747 ($M = 2683.8$). The results of these models are in **Figure 2** and in Tables S3 to S22.

Based on Levendusky (2018) findings and theorizing, we would expect that social distance from the out-party and out-ideology would decrease on or near July 4th. However, we did not find significant effects for the any of the short-term effects (i.e., July 4th, 1 Week post July 4th, Within 1 Day of July 4th, or Within 1 Week of July 4th factors).⁵ Translating the largest effect size from Levendusky (2018, Table 4, 3 Day Window) into our scaling would be a short-term effect of approximately $b = -.11$. The confidence intervals for the short-term effects when predicting both out-party and out-ideology social distance did not overlap with $b = -.11$ for Within 1 Day of July 4th or Within 1 Week of July 4th factors. For 1 Week

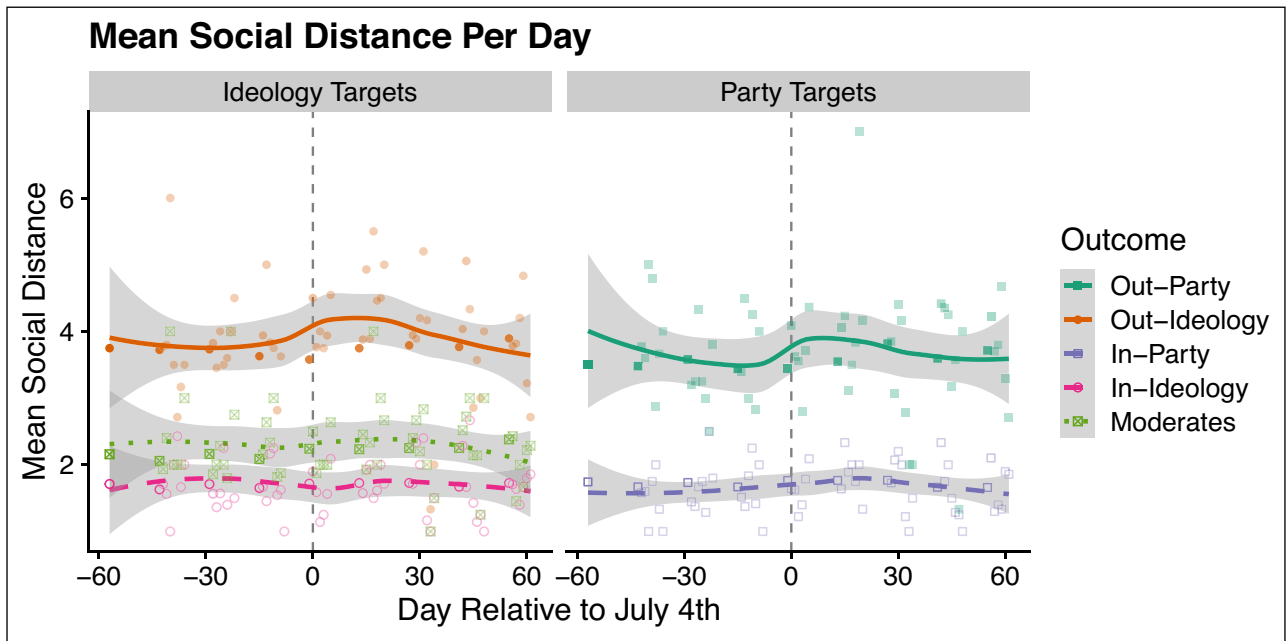


Figure 1: Mean social distance per day for each of the five outcome variables. Transparency of data points indicate sample size. Fit lines are based on the mean social distance per day and are loess smoothed using a span of .75 with 95% confidence intervals. Dashed Vertical line is July 4th. Higher scores indicate more social distance.

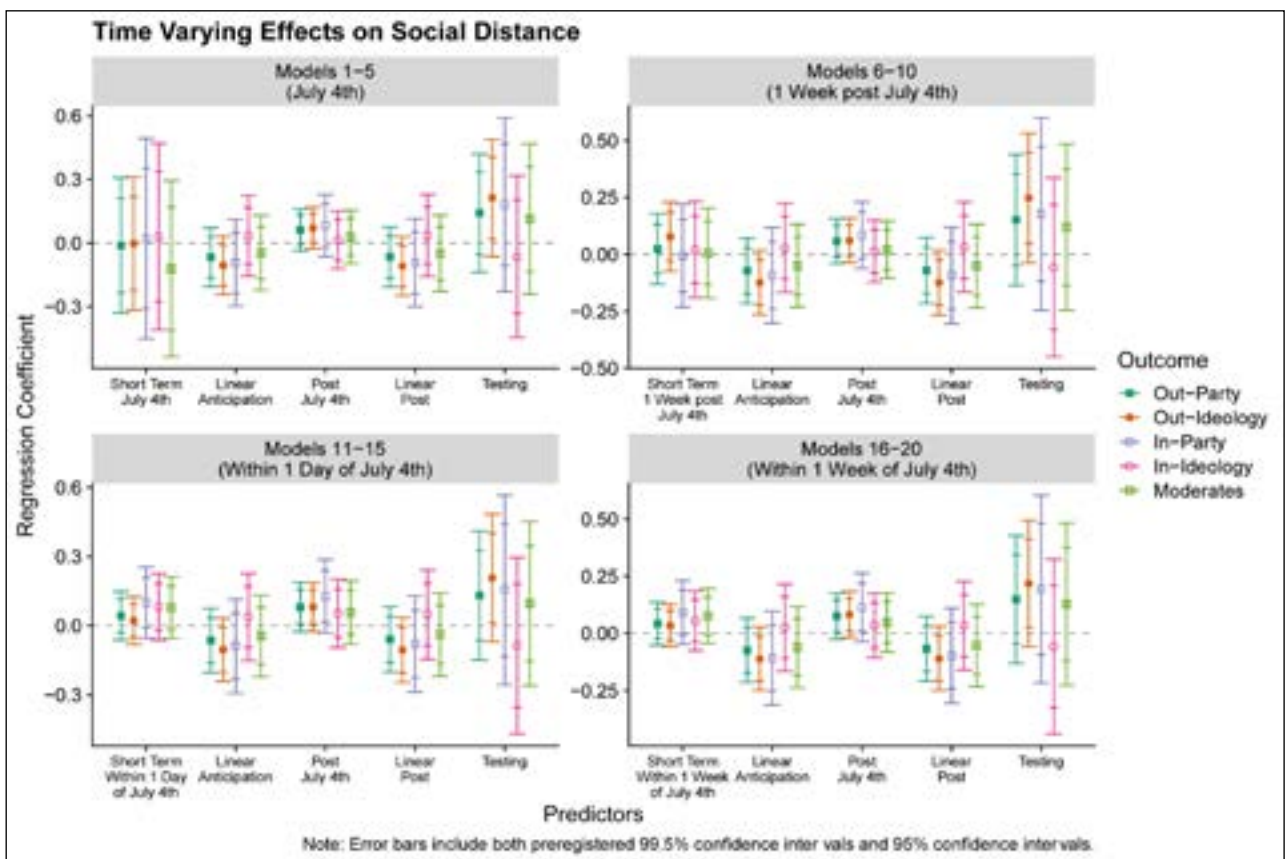


Figure 2: Estimates of the fixed effects and 99.5% confidence intervals of the time varying predictors on the five outcome measures. Significant random slopes are highlighted with triangles. Positive coefficients indicate that the predictor was associated with higher levels of social distance towards the target group.

post July 4th, the confidence interval did not overlap when predicting out-ideology. This suggests that many of the estimates of the current study are largely inconsistent

with the largest estimates of Levendusky's findings.⁶ The remaining confidence intervals are very wide with a lot of uncertainty.

Levendusky's findings could also be interpreted as predicting less social distance from the out-party and out-ideology as July 4th approaches and that social distance from the out-party and out-ideology increases as the July 4th recedes (i.e., on the longer-term time varying effects). However, we did not find significant effects of linear anticipation or linear post. These results are all inconsistent with our expectations. Notably, there were also no significant effects of any time-varying predictor on any of the potential outcome variables, including in-party, in-ideology, and moderate targeted social distance. Proximity to the July 4th holiday does not have any clear effects on social distance.

Are there Individual Differences in the Effect of Proximity to the July 4th on Affective Polarization?

We tested for the mere existence of individual differences in the experience of the holiday by testing if there are significant random effects for the time-varying predictors. That is, are the fixed effects reported in **Figure 2** significantly different between participants? Fixed effects are essentially averages of the effect across participants; meaning that it is possible that the average effect is not different from zero, but that the effect varies and is different for some subsets of participants. We test this possibility individually for each of the 20 models in **Figure 2**. For each model, we compare the model with a random effect for one of the fixed effects (e.g., Linear Post) to the model with only fixed effects (and no random effects, i.e. the model in **Figure 1**) using the `anova` function in R. Across all analyses, we use $p < .005$ as our alpha level. Of the 100 potentially significant random effects (5 time-varying fixed effects \times 20 models), we found that 80 of the time-varying predictors were significantly different between participants.⁷ These 80 significant random slopes suggest that there are individual differences in people's social distance trajectories over the course of the study.

Notably, the 20 non-significant random effects were for the short-term effects of July 4th, 1 Week post July 4th, Within 1 Day of July 4th, and Within 1 Week of July 4th. These time varying predictors are those that most clearly operationalize proximity to the July 4th holiday, suggesting that the non-significant effect of the July 4th is consistent across the participants in our sample. However, the remaining parameters of the model are more likely to differ between participants. Because these other parameters differed across participants, we conducted moderator analyses in order to try to explain these differences. However, because these were not the key parameters related to short-term effects of the 4th of July, we report these analyses in the supplemental materials.

Selection Effect?

The analytic strategy focuses on within-subject comparisons, which make selection effects less of a concern. However, one place they may emerge is that people who find the July 4th holiday particularly important might be less likely to participate in our study on July 4th because they are busy celebrating. To test if this is a concern, we

tested if the measure of the importance of the 4th of July was associated with the participants' completion date of the Wave 5 survey using a one-way ANOVA with date as the factor and importance of the 4th of July as the DV. Across all analyses we use $p < .005$ as our alpha level. This pre-registered ANOVA was not significant, $F(6, 308) = 1.54, p = .16$. A non-preregistered ANOVA recoding date to be dichotomous (on July 4th vs. other date) was also not significant, $F(1, 313) = 2.93, p = .09$. Similarly, distance from the July 4th holiday was not significantly correlated with the importance of the holiday, $r(313) = -.08, p = .15, 99.5\%CI [-.24, .08]$.

General Discussion

We found no clear effects of proximity to the 4th of July in 2019 on social distance from partisan and ideological outgroups, ingroups, or ideological moderates using a preregistered 9-wave panel study. Although individual differences exist on a number of the relevant longitudinal trajectories, we did not find individual differences on any of the factors representing short terms changes in social distance near the 4th of July.

The statistical power of this study was high enough to detect effects that are at least as large as the largest in Levendusky's (2018) original work when using the more lenient $p < .05$. However, if the true effect is smaller than this, our study is not well positioned to identify such an effect. Notably, the original effect size was somewhere between 1.72 and 3.63 points on a 100 point scale, suggesting that the original effect was quite small. Our study lends further credence to the likely small effect size of the July 4th holiday. The lack of any hints of the July 4th's effectiveness in the moderator analyses should further curtail any enthusiasm that the holiday has salutary effects of an appreciable size in our data. In short, these results should cast doubt on the effectiveness of the 4th of July to meaningfully reduce affective polarization in 2019.

There are important differences from Levendusky's (2018) original finding. Levendusky used a between-subjects design in the election year of 2008 and asked participants to evaluate candidates using a feeling thermometer. We used a within-subjects design in the off-election year of 2019 and asked participants to evaluate partisan and ideological ingroups and outgroups using a measure of social distance. All of these methodological differences should not theoretically cause a problem.

For example, the original paper was about affective polarization broadly (i.e. not just about candidates) and the theorizing should apply to our measures of social distance, a commonly used measure when studying affective polarization. Indeed, the theory of common ingroup identity (Gaertner and Dovidio 2000) that motivated the original work is a theory about reducing intergroup animosity in general and not about reducing only a specific type of intergroup animosity. Nonetheless, recent work has found that social distance may represent a different facet of animosity and affective polarization than do feeling thermometers (Druckman & Levendusky 2019). People also tend to report more animosity about political elites and parties than they do about ordinary

citizens who are part of the partisan outgroup (Druckman & Levendusky 2019; Kingzette, in press). Druckman and Levendusky (2019) show that when people evaluate the other party (as in Levendusky, 2018) they think of elites more than ordinary voters. However, our measure more explicitly focuses participants on ordinary voters. As such, this might mean that the measurement differences between our study and the original cause the differences in conclusions, similar to how feeling thermometers and social distance measures respond differently to some manipulations (Ahler & Sood, 2018). Readers who are persuaded that social distance measures are substantially different from other measures of affective polarization can interpret our findings as indicating that proximity to the 4th of July does not appear to affect one specific sub-type of affective polarization directed at behavior outcomes.

Importantly, other work finds that measures of social distance correlate well with feeling thermometers (Crawford et al., 2017), that both types of measures have similar predictors (Druckman & Levendusky 2019; Garrett & Bankert, 2020; Mason 2018), and react similarly to some experimental manipulations (Levendusky & Malhotra, 2016). This set of findings suggests that our measure of social distance should not necessarily find different results than feeling thermometers. Readers who are persuaded that social distance and feeling thermometers are more similar than different can interpret our findings as indicating that proximity to the 4th of July does not appear to meaningfully affect affective polarization more generally.

Similarly, conducting our study in a non-election year is different from the original. It seems that, if anything, a non-election year might be *less* polarizing because the political context is less competitive. Nonetheless, the political system in the United States is in a different place in 2019 compared to 2008. In the summer of 2008, both presidential candidates expressed support for working with members of the other party and bridging American divides. In the summer of 2019, Donald Trump held a polarizing military-style parade to mark the 4th of July. These different political contexts may be enough to politicize the meaning of the 4th of July and reduce its potential for the 4th of July to serve as a remind of American's superordinate identity.

Levendusky's (2018) original theoretical insight was that a common ingroup identity might reduce affective polarization. Although we did not find support for the idea that this might occur via proximity to the 4th of July, common ingroup identity could still be an effective depolarization strategy (Riek et al., 2010). This suggests that what serves as an effective prime of common ingroup identity is subject to change. According to Hornsey and Hogg (2000), making the superordinate identity salient while ignoring subgroup identities might induce identity threat and therefore perpetuate intergroup bias. As such, future application of Levendusky's (2018) July the 4th paradigm may find it useful to explicitly acknowledge the American, Democrat and Republican identities simultaneously. However, it is possible that growing differences between Democrats and Republicans limit the effectiveness of the American identity to function

as a common ingroup. Democrats and Republicans have different ideas about what American identity means (Hanson & O'Dwyer, 2019). Rutchick and Eccleston (2010) argue that because Democrats and Republicans are perceived to have rather different ideas about what the American identity means, it may be less able to harmoniously unite these subgroups. If this is the case, then carefully constructing primes to work their current context is important for replicating and extending the work on American identity primes, as well as using this work in practical settings. Future studies around the 4th of July holiday in different political circumstances and amidst different types of national conversations may help uncover if and how the meaning of the holiday impacts people's American identities and levels of polarization.

The longitudinal design allowed us to identify the existence of individual differences in response to the proximity of the 4th of July. However, this came at the cost of non-representativeness. Although our analyses suggest little heterogeneity in the effects of proximity to the 4th of July, a larger and more heterogenous sample may identify the predicted effects. We were also only able to include a single-item measure of affective polarization, although we were able to use this measure for both ideological and partisan groups. Our results suggest that proximity to the 4th of July does not impact social distance from ideological and partisan outgroups, ingroups, or ideological moderates in 2019. Other primes of American identity may be more effective.

Data Accessibility Statement

Data and replication code are available here: <https://osf.io/26bua/>.

Notes

- ¹ After our study was launched, a paper (Druckman & Levendusky 2019) was published suggesting that social distance measures capture a different factor of affective polarization compared to feeling thermometers, trust ratings, and trait ratings. At the same time, these authors note that (p. 119), "To be clear, this does not mean that one measure is "better" than another; rather, they gauge different manifestations of affective polarization." They also note (p. 119) that the correlates of social distance measures and the other measures of affective polarization "all meaningfully capture variation in partisan animosity." Because nothing in the theory of Levendusky (2018) suggests that proximity to the 4th of July should be limited to a particular type of affective polarization, we believe this is a reasonable test. We will return to this point in the discussion.
- ² Due to an error in the preregistration we listed the date ranges for within 1 week as between both 26 June and 10 July and between 3 July and 10 July. Because the latter range is the only version to adhere to the within 1 week description, we chose this version for the analyses.
- ³ The models were estimated in R (R Core Team, 2019) with lme4 (Bates et al., 2015). P-values were calculated using lmerTest (Kuznetsova et al., 2017). Additional

packages used in the analysis and visualization for these data include rio (Chan et al., 2018), tidyverse (Wickham, 2017), broom.mixed (Bolker and Robinson, 2019), effsize (Torchiano, 2019), cowplot (Wilke, 2019), and gridExtra (Aguie, 2017).

⁴ We conducted sensitivity analyses to estimate the power we had to detect a short-term effect using the simr package (Green & MacLeod, 2016). The base model for this power analysis was the model including out-party social distance as the outcome variable and within a week of the July 4th as the short term predictor. These analyses indicated that with an alpha of .005 we have 10% power (95% CI[4.90%, 17.62%]) to detect the smallest observed effect in Levedusky (2018; i.e. the equivalent of 1.72/100 scale points) and 68% power (95% CI[57.92%, 76.98%]) to detect the largest observed effect (i.e. the equivalent of 3.63/100 scale points). At the more traditional alpha of .05, we have 29% power (95% CI[20.36%, 38.93%]) and 84% power (95% CI[75.32%, 90.57%]) to detect the same effects. Details on our translations of Levedusky's (2018) effect sizes into our effect sizes are in the appendix.

⁵ We preregistered our alpha at .005. When using the more lenient and traditional alpha of .05 we do not find significant effects of these short term factors. We do find some significant effects linear anticipation, post July 4th, and linear post. See Figure 2 for the 95% confidence interval.

⁶ The short term effects of Within 1 Day of July 4th or Within 1 Week of July 4th were also different from Levedusky's (2018, Table 4, 10 Day Window) smallest effect ($\sim b = -.05$) when using 95% confidence intervals.

⁷ When using the more lenient and traditional alpha of .05 we do not find any additional significant random effects.

Additional File

The additional file for this article can be found as follows:

- **Online Appendix.** Additional figures, tables, and analyses. DOI: <https://doi.org/10.1525/collabra.368.s1>

Acknowledgements

This project has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant agreement No 759320).

Competing Interests

The authors have no competing interests to declare.

Author Contributions

Both authors designed the study. Mark Brandt oversaw data collection, analyzed the data, and drafted the manuscript. Felicity Turner-Zwinkels provided critical revisions.

References

Ahler, D. J., & Sood, G. (2018). The Parties in our Heads: Misperceptions About Party Composition and Their Consequences. *The Journal of Politics*, *80*, 964–981. DOI: <https://doi.org/10.1086/697253>

Bates, D., Maechler, M., Bolker, B., & Walker, S. (2015). Fitting linear mixed-effects models using lme4. *Journal of Statistical Software*, *67*, 1–48. DOI: <https://doi.org/10.18637/jss.v067.i01>

Benjamin, D. J., Berger, J. O., Johannesson, M., Nosek, B. A., Wagenmakers, E. J., Berk, R., ... & Cesarini, D. (2018). Redefine statistical significance. *Nature Human Behaviour*, *2*(1), 6–10. DOI: <https://doi.org/10.1038/s41562-017-0189-z>

Bolger, N., Zee, K. S., Rossignac-Milon, M., & Hassin, R. R. (2019). Causal processes in psychology are heterogeneous. *Journal of Experimental Psychology: General*, *148*(4), 601–618. DOI: <https://doi.org/10.1037/xge0000558>

Brandt, M. J., & Crawford, J. T. (2020). Worldview conflict and prejudice. In B. Gawronski (Ed.), *Advances in Experimental Social Psychology*. DOI: <https://doi.org/10.1016/bs.aesp.2019.09.002>

Brewer, M. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin*, *17*, 475–82. DOI: <https://doi.org/10.1177/0146167291175001>

Chan, C.-H., Chan, G. C. H., Leeper, T. J., & Becker, J. (2018). rio: A Swiss-army knife for data file I/O. R package version 0.5.16.

Correll, J., Judd, C. M., Park, B., & Wittenbrink, B. (2010). Measuring prejudice, stereotypes and discrimination. *The SAGE handbook of prejudice, stereotyping and discrimination*, 45–62. DOI: <https://doi.org/10.4135/9781446200919>

Crawford, J. T., Brandt, M. J., Inbar, Y., Chambers, J. R., & Motyl, M. (2017). Social and economic ideologies differentially predict prejudice across the political spectrum, but social issues are most divisive. *Journal of Personality and Social Psychology*, *112*, 383–412. DOI: <https://doi.org/10.1037/pspa0000074>

Denissen, J. J., Luhmann, M., Chung, J. M., & Bleidorn, W. (2019). Transactions between life events and personality traits across the adult lifespan. *Journal of Personality and Social Psychology*, *116*, 612–633. DOI: <https://doi.org/10.1037/pspp0000196>

Druckman, J. N., & Levedusky, M. S. (2019). What Do We Measure When We Measure Affective Polarization? *Public Opinion Quarterly*, *83*, 114–122. DOI: <https://doi.org/10.1093/poq/nfz003>

Gaertner, S. L., & Dovidio, J. F. (2000). *Reducing intergroup bias: The common ingroup identity model*. Psychology Press. DOI: <https://doi.org/10.4324/9781315804576>

Garrett, K. N., & Bankert, A. (2020). The Moral Roots of Partisan Division: How Moral Conviction Heightens Affective Polarization. *British Journal of Political Science*, *50*, 621–640. DOI: <https://doi.org/10.1017/S000712341700059X>

Green, P., & MacLeod, C. J. (2016). SIMR: an R package for power analysis of generalized linear mixed models by simulation. *Methods in Ecology and Evolution*, *7*, 493–498. DOI: <https://doi.org/10.1111/2041-210X.12504>

Hanson, K., & O'Dwyer, E. (2019). Patriotism and nationalism, left and right: A Q-methodology study

- of American national identity. *Political Psychology*, 40, 777–795. DOI: <https://doi.org/10.1111/pops.12561>
- Hornsey, M. J., & Hogg, M. A.** (2000). Assimilation and diversity: An integrative model of subgroup relations. *Personality and Social Psychology Review*, 4, 143–156. DOI: https://doi.org/10.1207/S15327957PSPR0402_03
- Huddy, L., & Khatib, N.** (2007). American patriotism, national identity, and political involvement. *American Journal of Political Science*, 51, 63–77. DOI: <https://doi.org/10.1111/j.1540-5907.2007.00237.x>
- Iyengar, S., & Krupenkin, M.** (2018). The strengthening of partisan affect. *Political Psychology*, 39, 201–218. DOI: <https://doi.org/10.1111/pops.12487>
- Iyengar, S., Lelkes, Y., Levendusky, M., Malhotra, N., & Westwood, S. J.** (2019). The origins and consequences of affective polarization in the United States. *Annual Review of Political Science*, 22, 129–146. DOI: <https://doi.org/10.1146/annurev-polisci-051117-073034>
- Iyengar, S., Sood, G., & Lelkes, Y.** (2012). Affect, not ideology: A social identity perspective on polarization. *Public Opinion Quarterly*, 76(3), 405–431. DOI: <https://doi.org/10.1093/poq/nfs038>
- Kingzette, J.** (in press). Who Do You Loathe? Feelings toward Politicians vs. Ordinary People in the Opposing Party. *Journal of Experimental Political Science*. DOI: <https://doi.org/10.1017/XPS.2020.9>
- Kuznetsova, A., Brockhoff, P. B., & Christensen, R. H. B.** (2017). lmerTest Package: Tests in linear mixed effects models. *Journal of Statistical Software*, 82(13), 1–26. DOI: <https://doi.org/10.18637/jss.v082.i13>
- Levendusky, M. S.** (2018). Americans, not partisans: Can priming American national identity reduce affective polarization? *The Journal of Politics*, 80, 59–70. DOI: <https://doi.org/10.1086/693987>
- Levendusky, M., & Malhotra, N.** (2016). Does media coverage of partisan polarization affect political attitudes? *Political Communication*, 33, 283–301. DOI: <https://doi.org/10.1080/10584609.2015.1038455>
- Mason, L.** (2018). Ideologues without issues: The polarizing consequences of ideological identities. *Public Opinion Quarterly*, 82(S1), 866–887. DOI: <https://doi.org/10.1093/poq/nfy005>
- Mullen, B., Brown, R., & Smith, C.** (1992). Ingroup bias as a function of salience, relevance, and status: An integration. *European Journal of Social Psychology*, 22(2), 103–22. DOI: <https://doi.org/10.1002/ejsp.2420220202>
- Palan, S., & Schitter, C.** (2018). Prolific.ac—A subject pool for online experiments. *Journal of Behavioral and Experimental Finance*, 17, 22–27. DOI: <https://doi.org/10.1016/j.jbef.2017.12.004>
- R Core Team.** (2019). R: A language and environment for statistical computing. Vienna, Austria: R Foundation for Statistical Computing. URL <https://www.R-project.org/>.
- Riek, B. M., Mania, E. W., Gaertner, S. L., McDonald, S. A., & Lamoreaux, M. J.** (2010). Does a common ingroup identity reduce intergroup threat? *Group Processes & Intergroup Relations*, 13, 403–423. DOI: <https://doi.org/10.1177/1368430209346701>
- Rutchick, A. M., & Eccleston, C. P.** (2010). Ironic effects of invoking common ingroup identity. *Basic and Applied Social Psychology*, 32, 109–117. DOI: <https://doi.org/10.1080/01973531003738353>
- Tajfel, H.** (1981). *Human groups and social categories: Studies in social psychology*. Cambridge: Cambridge University Press.
- Tajfel, H., & Turner, J.** (1979). An integrative theory of inter-group conflict. In W. G. Austin & S. Worchel (Eds.), *The Social Psychology of Intergroup Relations*. Monterey, CA: Brooks/Cole.
- Voci, A.** (2006). The link between identification and in-group favoritism: Effects of threat to social identity and trust-related emotions. *British Journal of Social Psychology*, 45(2), 265–284. DOI: <https://doi.org/10.1348/014466605X52245>
- Whitsett, D. D., & Shoda, Y.** (2014). An approach to test for individual differences in the effects of situations without using moderator variables. *Journal of experimental social psychology*, 50, 94–104. DOI: <https://doi.org/10.1016/j.jesp.2013.08.008>

Peer review comments

The author(s) of this paper chose the Open Review option, and the peer review comments can be downloaded at: <http://doi.org/10.1525/collabra.368.pr>

How to cite this article: Brandt, M. J., & Turner-Zwinkels, F. M. (2020). No Additional Evidence that Proximity to the July 4th Holiday Affects Affective Polarization. *Collabra: Psychology*, 6(1): 39. DOI: <https://doi.org/10.1525/collabra.368>

Senior Editor: Yoel Inbar

Editor: Kimberly Quinn

Submitted: 01 May 2020 **Accepted:** 06 July 2020 **Published:** 29 July 2020

Copyright: © 2020 The Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC-BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See <http://creativecommons.org/licenses/by/4.0/>.