The Political Relevance of Irrelevant Events

Ethan C. Busby, Northwestern University James N. Druckman, Northwestern University Alexandria Fredendall, Northwestern University

Do events irrelevant to politics affect citizens' political opinions? A growing literature suggests that such events (e.g., athletic competitions, shark attacks) do in fact shape political preferences. We present an experiment that largely replicates a widely noted irrelevant event effect. Specifically, we find that the outcome of a sporting event (i.e., a football game) affects presidential approval and likely does so by affecting individuals' moods. We also show that the effect is short-lived.

o events irrelevant to politics affect citizens' political opinions? A growing body of work suggests that they do: daily climate fluctuations, shark attacks, random lotteries, and athletic competitions can shape citizens' political preferences (e.g., Achen and Bartels 2016; Healy, Malhotra, and Mo 2010; Huber, Hill, and Lenz 2012). For example, Healy et al. (2010) report that, for each win by one's favored basketball team during the 2009 National Collegiate Athletic Association (NCAA) basketball tournament (in the third and fourth rounds), approval for President Obama increased by 2.3 percentage points. The increase was 5 percentage points among those closely following the tournament. The authors describe their findings as "evidence that [political] decisions are influenced by irrelevant events that have nothing to do with the competence or effectiveness of incumbent government" (2010, 12806-807).1

We build on Healy, Malhotra, and Mo's results, in three ways. First, we attempt to replicate their basic finding on a

different sporting event: a major college football game. We do so with an experimental design that facilitates causal inference by random assignment to a survey before or after the game.² Second, we offer suggestive evidence about the mechanism (i.e., mood) by which the irrelevant event influences political attitudes. Third, we introduce two additional measures: a "relevant" attitude connected to the event and over-time items to assess the longevity of irrelevant event effects.

EXPERIMENT

Studying the effects of irrelevant events on political opinions entails identifying a politically irrelevant event (e.g., a sporting event) experienced by individuals that causes them to shift their political attitudes (e.g., winning/losing teams leads to more/less support for the incumbent). The event on which we focus is the 2015 College Football Playoff National Championship game, played on January 12 between The Ohio State

Ethan C. Busby (busby@u.northwestern.edu) is a PhD candidate at the Department of Political Science, Northwestern University, Evanston, IL, 60208. James N. Druckman (druckman@northwestern.edu) is Payson S. Wild Professor of Political Science at the Department of Political Science and Faculty Fellow at the Institute for Policy Research, Northwestern University, Evanston, IL 60208. Alexandria Fredendall (AlexandriaFredendall2015@u.north western.edu) was, until graduating, an undergraduate student (BA 2015) at the Department of Political Science, Northwestern University, Evanston, IL, 60208.

This study was deemed exempt by Northwestern University's Institutional Review Board, under study number STU00200104. Support for this research was provided by Northwestern University. Data and supporting materials necessary to reproduce the numerical results in the paper are available in the *JOP* Dataverse (https://dataverse.harvard.edu/dataverse/jop). An online appendix with supplementary material is available at http://dx.doi.org/10.1086/688585.

1. This conclusion (Healy et al. 2010) is based, in part, on observational data about how respondents react to college basketball games. They also include an experimental condition that corrected for the event effect by explicitly reminding respondents of the game. Additionally, Healy, Malhotra, and Mo include a football study using over-time aggregate data that has been debated (Fowler and Montagnes 2015a, 2015b; Healy, Malhotra, and Mo 2015).

2. We use an experiment to study the causal impact of the irrelevant event. This differs from the Healy et al. (2010) experiment, which focused on correcting the irrelevant event effect. We do not study corrections; our study is, in many ways, an experimental replication of their observational data on basketball games.

University (OSU) and the University of Oregon (UO). OSU won the game 42–20, and thus, OSU is the "winning school" and UO is the "losing school." Our samples came from students at the respective universities who, even if not football fans, were very likely affected by the event. Specifically, we accessed each school's public student directories and randomly selected approximately 1,800 students from each school to generate our sample.

Our precise design involved randomly assigning students from each school (winning OSU and losing UO) to receive an invitation (and reminders) to complete a survey before or after the game. We sent the initial before-game invitations on January 10, 2015, and told students they must complete the survey by January 12. We sent an analogous invitation to the after-game groups the day after the game and told these respondents that they had to complete the (same) survey by January 15. The e-mailed invitations asked individuals to participate in a survey aimed at understanding "the political and social opinions of college students," thereby avoiding alerting respondents that the survey had a connection to the football game; prior research suggests that if such a conscious connection is made, the irrelevant effect disappears (e.g., Druckman 2015; Healy et al. 2010, 12806; Schwarz and Clore 1983). We discuss sampling specifics, response rates, and other implementation details in the appendix (available online).

To analyze the impact of the game on attitudes, we focus on comparisons within each school (the before-game against after-game groups). Due to random assignment to the beforeor after-game condition, any differences in our key outcome measures between the two groups very likely stem from experiencing the event (i.e., the game). Our main outcome measure is a standard presidential approval question (measured on a 7-point fully labeled scale with higher scores indicating increased approval). This measure is analogous to the outcome used by Healy et al. (2010) in their examination of college basketball wins.

We also sought to explore the possible mechanism by which the irrelevant event affects attitudes. We follow a large body of research by focusing on mood, which has been shown to have various types of unintended effects (e.g., Schwarz and Clore 1983, 2003). In our case, the logic is that the event (i.e., the game) generates either a positive or a negative mood that then spreads to (e.g., contaminates) unrelated status quo evaluations. In other words, a win causes a positive mood which, in turn, leads people to view the current state of the world—such as assessments of the sitting president—in a relatively positive light (Bassi 2013; Healy et al. 2010, 12804; Huber et al. 2012, 731). To assess whether mood is a possible mechanism, we included an abbreviated version of the Positive and Negative Affect Schedule (PANAS) (e.g., Bassi 2013; Watson and Clark 1994); the scale included four items that reflect a positive mood (enthusiastic, proud, interested, and elated) and nine items for negative mood (afraid, worried, anxious, angry, bitter, hatred, contempt, resentful, sad). These items asked participants to indicate, on 5-point scales, how much they are feeling these specific things (see the appendix for a discussion of why we used mood rather than discrete emotions).

We also included a potentially relevant outcome measure: satisfaction with one's university, measured on a 7point fully labeled scale, with higher scores indicating increased satisfaction (see Mixon and Treviño 2005; see the appendix for additional measures included). Finally, we recontacted respondents roughly one week after their initial participation to remeasure our main outcome questions and assess whether any effects of the game endure.

Our design leads to straightforward expectations about how the game may influence the variables we measured. Recall that our focus is on the randomly assigned before- and after-game groups within schools. We predict that comparisons between the before- and after-game OSU (winning team) groups should show increased positive mood, decreased negative mood, increased approval, and increased school satisfaction. We expect the reverse trend for Oregon (losing team). We lack expectations for the duration measures as past work on over-time opinion dynamics offers mixed results (e.g., Lecheler and De Vreese 2016).

RESULTS

We present the results for presidential approval in table 1. The columns report the mean scores for each condition, with asterisks indicating statistical significance (using one-tailed tests as we have directional predictions). We find clear evidence that the irrelevant event influenced opinions for both the OSU and UO respondents. When it comes to presidential approval, we see a significant increase in support from 4.18 to 4.63 (on the 7-point scale), due to the game, among OSU respondents. We also see a similarly sized significant decrease (from 4.56 to 4.12) for UO respondents. (The before-game OSU-UO difference reflects that the UO sample was more Democratic: 64.50% of the UO sample versus 44.57% of the OSU sample.) We also find substantial effects on satisfaction with one's university, with OSU respondents increasing in satisfaction from 5.35 to 5.93, and UO respondents becoming substantially less satisfied (from 5.24 to 4.30). Events appear to be able to affect opinions irrelevant to one domain (politics) while also influencing attitudes in a relevant domain.

Mood

The posited mechanism by which irrelevant event effects work is a change in mood in either a positive or negative

	Bef	ore Game	After Game			
	Coefficient	SD	Ν	Coefficient	SD	Ν
Ohio State (winning team) respondents:						
Presidential approval (7-point scale)	4.18	1.61	87	4.63*	1.84	109
Satisfaction with university (7-point scale)	5.35	1.69	84	5.93**	1.63	104
Oregon (losing team) respondents:						
Presidential approval (7-point scale)	4.56	1.50	105	4.12*	1.78	113
Satisfaction with university (7-point scale)	5.24	1.56	102	4.30**	1.75	107

Table 1. Effects	s on Ohio St	te (Winning	Team) and	Oregon	(Losing	Team)	Respondents
------------------	--------------	-------------	-----------	--------	---------	-------	-------------

* $p \leq .05$, for one-tailed tests.

** $p \leq .01$, for one-tailed tests.

direction. This shift is contagious, affecting (or contaminating) seemingly irrelevant opinions (Huber et al. 2012, 731). We used the described PANAS measures to create aggregate (average) measures of positive and negative mood (see Bassi 2013, 22).³ The results, presented in table 2, show clear mood effects. When it comes to positive mood, we observe a sizable increase from the before- to after-game OSU groups, moving from 3.03 to 3.49 (on a 5-point scale); on the flip side, we see a decline from 2.78 to 2.43 in positive mood among the UO respondents (both changes are statistically significant). When it comes to negative mood, we see a significant increase among the UO respondents from 1.80 to 2.16. The change for OSU respondents is not significant but moves in the anticipated direction (e.g., fewer negative feelings after the game). The design of our experiment precludes us from directly documenting mood as the mediating factor (see Bullock and Ha 2011)-a better approach would entail a within-subject design. In addition, the measures we use for mood rely on self-reports with measurement error. More indirect techniques of measuring mood would help to confirm the findings with self-reported mood indicators. That said, the data clearly demonstrate the possibility of the proposed relationship (also see Bassi 2013).

Durability

The final question we address is whether the effects from the game endure one week later (also see Egan and Mullin 2012, 804; Healy et al. 2010, 12805). Recall that we conducted a follow-up survey one week after the initial survey, remeasuring presidential approval (see the appendix for further discussion of our durability results). We limit our analyses of over-time

3. The alphas for both measures are .85, although the inter-item covariance is notably higher for the positive terms. effects only to those who responded at time 2 (T2); otherwise, we would be comparing distinct time 1 (T1) and T2 samples (i.e., the T2 sample would be a subset of T1).⁴

Figure 1 shows that the irrelevant event effect apparent at T1 disappears a week later. Consider that at T2, the OSU before-game group had experienced the victory. If the victory had a lasting effect, the average presidential approval score for the OSU before-game group should increase at T2, approaching that of the after-game OSU group. This is not what we see. Instead, the OSU before-game group shows insignificant (negative) change over time, moving from a 4.22 average to a 3.98. Experiencing the victory did not cause a change, a week later, in the before-game OSU group. In contrast, the after-game OSU group significantly declines from a 4.93 average to 4.03, suggesting that the after-game impact disappeared.

We see the same pattern of results for UO. The beforegame UO group slightly declines from 4.74 to 4.6; the fact that this difference is nowhere near significance suggests that the loss had no detectable effect at T2. Conversely, the after-game UO group, which demonstrated a drop in approval after the initial loss, increased to an average score of 4.57 (approaching the before-game T1 score). This change falls just short of conventional levels of significance (at p =.052 for a one-tailed test).⁵ The impact of the loss appears to have faded. Even though we studied one of the most watched sporting events with clearly affected samples, the irrelevant effects seem more akin to brief blips than en-

^{4.} The results presented in this section are robust to the use of multiple imputation techniques that allow us to simulate responses of all time 1 participants. See the appendix for more details.

^{5.} That the scores for both before- and after-game groups converge at time 2 is evidence that, within schools, the experimental groups are comparable.

	Before-Game Positive Mood			After-Game Positive Mood			Before-Game Negative Mood			After-Game Negative Mood		
	Coefficient	SD	Ν	Coefficient	SD	Ν	Coefficient	SD	Ν	Coefficient	SD	Ν
OSU	3.03	1.03	83	3.49**	1.00	103	1.82	.70	83	1.71	.68	103
UO	2.78	1.00	98	2.43**	.89	107	1.80	.72	98	2.16**	.79	107

Table 2. Effects on Mood

* $p \leq .05$, for one-tailed tests.

** $p \leq .01$, for one-tailed tests.

during changes. This, in some sense, is not surprising given that mood is the likely mechanism. Mood effects are likely short-lived and probably changed by T2.

Our results accentuate the need for future research on the durability of irrelevant effects (also see Egan and Mullin 2012). It remains unclear just how often—and with what events, attitudes, populations, times, and contexts—irrelevant event effects are so short-lived that they have minimal consequence for opinion formation. Consider our results in tandem with Healy et al.'s (2010) football study (see n. 1). Those authors find that effects from football games last about 10 days, but their data involve games that occur around elections. In the context of an election, voters may have arrived at their vote choice when the effect of the game was still strong; their data and our results cannot speak to this possibility.

DISCUSSION

Our results show that irrelevant events can have political consequences (see the appendix for various supportive analysis and robustness checks). That said, caution should be taken in generalizing our results. In some sense, our sample size was two—two schools around one event, rather than multiple schools around various games. Moreover, in many ways, we maximized the likelihood of finding an effect: we focused on a major event (one of the most watched sporting events of the year), a sample of respondents akin to strong fans (even if students are not football fans, the campus atmosphere and school reaction is unavoidable), a young sample where movement in political attitudes is more likely given that their political opinions are not crystallized, and a time when there were no notable political debates or elections.

The study of irrelevant event effects in politics is an emerging area of inquiry, and going forward, we urge scholars to systematize it so as to avoid haphazardly choosing events. This entails clearly defining what events are in fact "irrelevant," sampling from a population of such events, and then identifying the conditions under which they affect political attitudes and behaviors. Relatedly, the presence of irrelevant



Figure 1. Presidential approval over time

event effects suggests that mood can play a salient role in opinion formation processes. This suggests a need to determine when mood effects occur, for how long, and with what impact, relative to other ingredients of preference formation.

ACKNOWLEDGMENTS

We thank Joseph Alvaro, Claire Grabinski, Adam Howat, Heather Madonia, Rachel Moskowitz, Jacob Rothschild, Allison Rubenstein, Richard Shafranek, and Julia Valdes for helping to gather materials for the study. We thank Karen Alter, John Bullock, Alex Coppock, Dan Druckman, Anthony Fowler, James Fowler, Andrew Healy, Seth Hill, Adam Howat, Neil Malhotra, Jacob Rothschild, Richard Shafranek, and seminar participants at Harvard University, the University of Texas, the University of Wisconsin–Madison, and Northwestern University for helpful comments. We also thank our anonymous reviewers for their feedback.

REFERENCES

- Achen, Chris H., and Larry M. Bartels. 2016. *Democracy for Realists: Why Elections Do Not Produce Responsive Government*. Princeton, NJ: Princeton University Press.
- Bassi, Anna. 2013. "Weather, Mood, and Voting." Social Science Research Network. http://papers.ssrn.com/abstract = 2273189.
- Bullock, John G., and Shang E. Ha. 2011. "Mediation Analysis Is Harder Than It Looks." In James N. Druckman, Donald P. Green, James H. Kuklinski, and Arthur Lupia, eds., *Cambridge Handbook of Experimental Political Science*. New York: Cambridge University Press, 508–21.

- Druckman, James N. 2015. "Eliminating the Local Warming Effect." Nature Climate Change 5 (3): 176–77.
- Egan, Patrick J., and Megan Mullin. 2012. "Turning Personal Experience into Political Attitudes." *Journal of Politics* 74 (3): 796–809.
- Fowler, Anthony, and B. Pablo Montagnes. 2015a. "College Football, Elections, and False-Positive Results in Observational Research." Proceedings of the National Academy of Sciences 112 (45): 13800–804.
- Fowler, Anthony, and B. Pablo Montagnes. 2015b. "Reply to Healy et al." Proceedings of the National Academy of Sciences 112 (45): E6592.
- Healy, Andrew J., Neil Malhotra, and Cecilia Hyunjung Mo. 2010. "Irrelevant Events Affect Voters' Evaluations of Government Performance." *Proceedings of the National Academy of Sciences* 107 (29): 12804–809.
- Healy, Andrew J., Neil Malhotra, and Cecilia Hyunjung Mo. 2015. "Determining False-Positives Requires Considering the Totality of the Evidence." *Proceedings of the National Academy of Sciences* 112 (45): E6591.
- Huber, Gregory A., Seth J. Hill, and Gabriel S. Lenz. 2012. "Sources of Bias in Retrospective Decision Making." *American Political Science Review* 106 (4): 720–41.
- Lecheler, Sophie, and Claes H. De Vreese. 2016 "How Long Do News Framing Effects Last? A Systematic Review of Longitudinal Studies." In Elisia L. Cohen, ed., *Communication Yearbook 40*. New York: Routledge, 3–33.
- Mixon, Franklin G., and Len J. Treviño. 2005. "From Kickoff to Commencement." *Economics of Education Review* 24 (1): 97–102.
- Schwarz, Norbert, and Gerald L. Clore. 1983. "Mood, Misattribution, and Judgments of Well-Being." *Journal of Personality and Social Psychol*ogy 45 (3): 513–23.
- Schwarz, Norbert, and Gerald L. Clore. 2003. "Mood as Information: 20 Years Later." *Psychological Inquiry* 14(3/4): 296–303.
- Watson, David, and Lee A. Clark. 1994. "Emotions, Moods, Traits, and Temperaments." In Paul Ekman and Richard J. Davidson, eds., *The Nature of Emotion: Fundamental Questions*, 1st ed. New York: Oxford University Press, 89–93.