ANGER, NEGATIVE PARTISANSHIP, AND JOY IN THE SUFFERING OF POLITICAL OTHERS[*]

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Abstract

American political behavior is increasingly characterized by anger and feelings of negativity towards the opposing political party. Yet, our understanding of how this anger and negativity shape attitudes towards out-partisans is not fully understood. In this paper, we study how anger and out-party negativity affect Americans' expression of partisan schadenfreude. Drawing on data from a survey experiment of nearly 2,900 American partisans, we find that the exogenous introduction of anger causes respondents to experience "joy in the suffering" of partisan others. However, this effect is limited to schadenfreude directed towards an out-party neighbor; it does not extend to schadenfreude directed towards an out-party politician. Moreover, we find that this effect is not moderated by an individual's level of pre-existing negativity towards the out-party. Our results suggest that the growing amounts of anger in American politics can—and does—shape how individuals view, and empathize with, their fellow citizens.

Politicians and democratic theorists alike have long argued that democracy requires mutual understanding, respect, and a willingness to work with those with whom one disagrees. Jimmy Carter, for instance, wrote in an op-ed for *The New York Times* that "we must resist the polarization that is reshaping our identities around politics" and, instead, "focus on a few core truths: that we are all human, we are all Americans and we have common hopes for our communities and our country to thrive." The former president added that he hoped Americans would "find ways to re-engage across the divide, respectfully and constructively, by holding civil conversations with family, friends and co-workers and standing up collectively to the forces dividing us."[1]

Mass-level partisanship in the United States is increasingly discordant with such a vision. Indeed, contemporary American political behavior is emotionally-charged and replete with both behavioral and attitudinal biases that run contrary to such a democratic ideal. The American electorate is angry (Webster 2020; Banks 2014) and views the opposing party and its supporters with hostility (Abramowitz and Webster 2016). These attitudes often spill over into forms of discrimination (Iyengar, Sood and Lelkes 2012), "de-humanization" (Cassese 2021; Martherus et al. 2021), and social polarization (Webster, Connors and Sinclair 2022).

In this paper, we analyze how the trends of anger and negativity are related to a pernicious political attitude: partisan schadenfreude, or "joy in the suffering" of those who support the opposing political party. To do so, we present evidence from a survey experiment on nearly 2,900 American adults who identify with either the Democratic or Republican Party. After exogenously manipulating individual-level anger towards the out-party, we measured partisan schadenfreude in the wake of an unfortunate event that had befallen an out-partisan. Crucially, we examine partisan schadenfreude as it pertains to both an ordinary out-partisan and an out-partisan elected official. We also examine whether the effect of anger on engendering partisan schadenfreude is moderated by one's amount of pre-existing negativity towards the opposing political party.

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[1]Carter's op-ed can be found at https://www.nytimes.com/2022/01/05/opinion/jan-6-jimmy-carter.html. Accessed March 3, 2023.

Our results indicate that partisan-directed anger causes Americans to express happiness when an out-partisan is faced with an unfortunate event or circumstance. However, we find that this effect is limited to schadenfreude as it pertains to a member of the mass public—anger does not appear to cause Americans to experience schadenfreude when an unfortunate event befalls an out-partisan elite. Moreover, we find that, while pre-existing negativity towards the out-party predicts partisan schadenfreude, this negativity does not moderate the effect of anger on expressing "joy in the suffering" of partisan others.

Schadenfreude, Negativity, and American Politics

Schadenfreude is a type of "malicious joy" (Heider 1958) that is felt when an individual observes the pain of another individual or group. Schadenfreude can arise under several circumstances, but it is notably present when an individual feels envy (Smith et al. 2009) or resentment (Feather and Sherman 2002) towards another. Schadenfreude also arises when individuals perceive those who are suffering to be deserving of the pain or misfortune that they are experiencing (van Dijk et al. 2005; van Dijk, Ouwerkerk and Goslinga 2009). Additionally, prior work has shown that one is more likely to experience schadenfreude when the experience occurs in a domain of interest for the individual (Leach et al. 2003).

Though it is experienced on the individual level, schadenfreude has commonly been studied as a group-based form of expression (Leach et al. 2003; Leach and Spears 2009; Ouwerkerk et al. 2018). Rooted in notions of social identity theory (Tajfel and Turner 2004), intergroup schadenfreude has been studied in myriad areas. For instance, evidence of group-level schadenfreude has been documented between sports fans (Cikara, Botvinick and Fiske 2011; Hoogland et al. 2015), racial groups (Hudson, Cikara and Sidanius 2019), and even groups devoid of any contextual or historical meaning (Cikara et al. 2014).

So, too, has schadenfreude been studied in the context of political competition. Prior work

suggests that schadenfreude can be elicited by observing the misfortune or embarrassment of a political elite, and that this schadenfreude may result in changes in individual-level political behavior (Peplak, Klemfuss and Ditto 2022; Myrick and Chen 2022). Similarly, Crysel and Webster (2018) find that when political elites experience embarrassment, citizens experience episodic schadenfreude. This politically-oriented schadenfreude has the ability to manifest in various areas and in various ways (Webster, Glynn and Motta 2024); it also has the ability to moderate how citizens react to signals and cues from political elites (Nai and Otto 2021).

Anger might be a particularly important driver of politically-oriented schadenfreude between American partisans. Such an expectation is rooted in prior work that links "other-directed negative emotions," such as anger, to schadenfreude (Hareli and Weiner 2002). Other studies find that anger is connected to schadenfreude when the anger centers on the perception that one's group is inferior to some out-group (Leach and Spears 2008). Related work finds that anger, used as part of a measure of aggression, also correlates with schadenfreude (Crysel and Webster 2018). Still others argue that anger is an "important antecedent of schadenfreude," primarily through its connection to envy (van de Ven et al. 2014). So important is anger to the development of "joy in the suffering of others" that its emotional expression has sometimes been used as part of aggregate scales that seek to measure schadenfreude (see, e.g. Greenier 2015).

Accordingly, drawing on these prior studies, our expectation is that anger will cause individuals to express schadenfreude. However, in this study we examine the causal effect of anger on the expression of a particular kind of schadenfreude: *partisan* schadenfreude—that is, "joy in the suffering" of those whose political identity differs from one's own. In doing so, we study the effect of anger on schadenfreude that is directed towards two different targets: an ordinary citizen who supports the opposing political party, as well as an elected official who identifies with the opposing political party. Such an empirical approach mirrors the literature on polarization in American politics, which often differentiates between elite- and mass-level extremism (Abramowitz and Saunders 2008; Fiorina and Abrams 2012).

Moreover, there are particular reasons to think that the current political era is one in which schadenfreude is both likely to exist and have the strength of its expression be dependent upon other individual-level characteristics. The current era of American politics is one in which negativity abounds. Rather than being oriented around the party that one prefers, American political behavior is driven in large part by a desire to see the party that one dislikes be kept out of political power. This "negative partisanship" (Abramowitz and Webster 2016; Bankert 2021), which has done much to re-structure the nature of political attitudes in the United States, is likely to facilitate a climate in which partisans derive a sense of satisfaction when the out-party loses an election or faces some other type of setback. Moreover, because negative partisanship is driven in no small part by individual-level feelings of anger towards the out-party (Webster 2020; Abramowitz and Webster 2018), those whose partisan identification is primarily defined by the party they oppose rather than the party they support should be most susceptible to expressing schadenfreude when angry.

Design

To examine the effect of anger on political schadenfreude, we ran a survey experiment in March 2023 on nearly 2,900 U.S. adults who self-identified as either a Democrat or a Republican. Fielded via the Lucid Theorem platform, our sample is 73% White, 49% female, and 41% have at least a Bachelor's degree. Our sample leans Democratic, with 57% reporting an affiliation with the Democratic Party.

To begin, survey respondents were asked a series of sociodemographic and political questions. This included questions measuring educational attainment, partisan affiliation, ideological self-identification, and affect towards the two major political parties. Affect towards the Democratic and Republican parties was measured by using the traditional "feeling thermometer" scores that range from 0-100, where higher numerical values indicate a greater degree of affect.

Partisan orientation—either positive or negative—was measured using Bankert's (2021) mea-

sure of positive and negative partisanship. Positive and negative partisan scales were assigned to respondents based off of their responses to the partisan identification question. Accordingly, self-identifying Democrats were presented the positive partisan scale for the Democratic Party and the negative partisan scale for the Republican Party. Conversely, self-identifying Republicans were given the positive partisan scale for the Republican Party and the negative partisan scale for the Democratic Party. In all cases, those who indicated that they were politically independent but leaned toward one of the two parties were classified as partisans.

Drawn from psychological measures designed to capture the extent to which individuals hold both affirmative and negational identities (Zhong et al. 2008), the positive and negative partisanship measures ask respondents to indicate how often they feel, do, or act in accordance with the presented statement. Example statements include "when this party does well in opinion polls, my day is ruined;" "I get angry when people praise this party;" and "I do not have much in common with supporters of this party." A full list of questions used to construct both the positive and negative partisan identity scales can be found in the Appendix. Following established convention (Bankert 2021, 2022), we separately combine the responses to the positive and negative partisanship measures into an additive scale. For simplicity, we then re-scale each of these measures to range from 0-1.

After answering these questions respondents were randomized into one of two conditions. The first condition, our treatment, is an "emotional recall" prompt that sought to elicit anger among our respondents. This technique, which has a history of use in both psychology and political science, works by causing individuals to temporarily re-experience, or "recall," the desired emotion through a short writing task. For our purposes, those who were randomized into this treatment condition were asked to "write about a time they were very angry at the opposing political party, its leaders, or its supporters in the electorate." Thus, our treatment is a specific kind of anger—one that is directed specifically at the opposing political party—and, accordingly, is only shown to those who

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registered a pre-treatment identification with either the Democratic or Republican Party.[2] Those who were randomized into the control group were asked to write about what they ate for breakfast.

After being randomized into either the treatment or control group, respondents were presented with two vignettes describing an unfortunate event that had befallen a member of the opposing political party. One vignette, designed to capture attitudes towards an ordinary citizen, described an out-partisan who had lost their job after a recent merger between two companies. The other vignette was designed to measure attitudes towards political elites. Accordingly, respondents were told about a politician who is known for making boastful statements to the press recently being placed under investigation by the Federal Election Commission (FEC) for potential violations of campaign finance law. Respondents were further told that, if this politician was found guilty, potential punishments included a monetary fine and/or removal from Congress. In all cases, respondents were first shown the vignette about an out-partisan neighbor and then the out-partisan politician.

After each of these vignettes, we presented respondents with a series of three statements about the scenario that was just described. These statements are derived from van de Ven et al. (2014). The first statement is "I would be a little amused by what happened to him;" the second statement is "I would be pleased by the little misfortune that happened to him;" finally, the third statement is "I'd find it difficult to resist a smile." For each, respondents were asked to indicate how much they agreed or disagreed with the statement as a descriptor of their own behavior. Agreement with each statement is assessed on a 0-6 scale, where higher values indicate a greater level of agreement. These three statements are then combined into an additive scale; finally, this measure is re-scaled to range from 0-6 (Webster, Glynn and Motta 2024).

There are two estimands of interest. First, we are interested in the effect of anger on partisan schadenfreude. Because respondents were randomly assigned into our treatment and control conditions, the intent-to-treat effect is obtained by simply regressing our schadenfreude measure on an indicator variable for treatment status. We also use an instrumental variables analysis, where

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[2]Those who self-identified as a "pure independent" were dropped from the survey prior to the randomization stage.

the assignment to our treatment condition serves as an instrument for the percentage of anger-related words used in one's emotional recall task, in order to estimate a complier-weighted local average treatment effect (LATE) of anger on partisan schadenfreude. However, we are further interested in the relationship between anger, one's status as a negative partisan, and partisan schadenfreude ($r_{\text{Neg. Par., Neighbor}} = .34$; $r_{\text{Neg. Par., Politician}} = .54$). To analyze this relationship, we regress our schadenfreude measure on our treatment indicator, our negative partisanship scale, and an interaction between these two variables. We also estimate this relationship by regressing our schadenfreude measure on the instrumented percentage of anger-related words used in one's emotional recall story, the negative partisanship scale, and an interaction between the two. This design, as well as the hypotheses outlined above, were preregistered with the Wharton Credibility Lab at the University of Pennsylvania.[3]

Results

To begin, we present results of a balance check between treated and control units. We check for balance in terms of age, gender, race, educational attainment, partisanship, ideology, negative partisan identity, and positive partisan identity. The mean values on each of these metrics between treated and control units, as well as the difference between treated and control units, is shown in Table 1. The figures in Table 1 suggest that there are no statistically significant differences between treated and control units on these dimensions. Thus, our randomization process appears to have worked as intended.

In addition to the randomization process working as intended, our experimental manipulation appears to have had the desired effect. Indeed, respondents who were randomized into the treatment group do appear to have been made angry. One respondent wrote about the events on January 6, 2021, saying that they were "angry at the Republican Party supporters when they stormed the

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[3]The preregistration document can be found here: https://aspredicted.org/blind.php?x=91K_SDV.

Variable	Treatment	Control	Difference	P-Value
Age	45.54	45.62	-0.08	0.89
Female	0.49	0.50	-0.01	0.48
Non-White	0.26	0.28	-0.02	0.21
Bachelor's Degree+	0.39	0.42	-0.02	0.16
Democrat	0.56	0.57	-0.00	0.79
Ideology	3.92	3.94	-0.03	0.71
Negative Partisan ID	0.45	0.45	0.00	0.70
Positive Partisan ID	0.47	0.47	0.01	0.58

Table 1: Balance Statistics. This table shows balance statistics between the treatment and control groups on sociodemographic and political characteristics.

[Capitol building] when former president trump was not re elected into office." Many wrote about their anger over the "fixed" or "stolen" election that saw Joe Biden defeat Donald Trump to win the White House. Still others expressed anger over potential reforms or cuts to Social Security and Medicare, while others focused their anger on border control issues or the Supreme Court's decision to overturn *Roe v. Wade*.

To provide further evidence that our experimental manipulation worked as intended, we rely on the Linguistic Inquiry and Word Count (LIWC) dictionary to determine whether those who were randomized into the anger treatment wrote a greater percentage of anger-related words compared to those who were randomized into the control group. As language is a signal of one's emotional state (Tausczik and Pennebaker 2010), treated individuals should be expected to use a greater percentage of anger-related words in their emotional recall stories. This is precisely what we find; those who were randomized into the treatment condition used, on average, 2.1% ($p < .001$) more anger-related words in their emotional recall stories compared to those in the control group. Thus, our experimental manipulation was successful at eliciting anger among the treated units. And, while the difference in anger between treated and control units is small in an absolute sense, we believe this difference is substantively meaningful. To begin, our treatment asked respondents to recall a partisan-based form of anger that they had previously experienced. Thus, we are asking individuals to reflect on a previous anger-inducing incident rather than something that is contemporaneously

anger-inducing. Second, we are relying on a text-based manipulation which, by design, is likely to be a weak stimulus. That we are able to find a difference in the amount of anger expressed between treated and control units in spite of these design choices suggests that our treatment did, in fact, work as intended.

The results of the experimental design are shown in Table 2. Columns 1 & 2 show the intent-to-treat effect of anger on schadenfreude directed towards an out-party neighbor and out-party politician, respectively. Column 3 shows the results of the first stage regression (i.e., the percentage of anger-related words regressed on our treatment indicator), while Columns 4 & 5 show the second stage results for our neighbor-directed and politician-directed measures of schadenfreude (i.e., the schadenfreude measures regressed on the percentage of anger-related words used by individuals in their emotional recall stories). These latter two regressions estimate a complier-weighted local average treatment effect (LATE) of anger on schadenfreude.

The results of the experimental manipulation suggest that anger causes Americans to experience partisan schadenfreude, or "joy in the suffering of political others," when the schadenfreude pertains specifically to an out-partisan neighbor losing his job. This effect is observed in the intent-to-treat estimate ($\beta_{\text{Anger}} = 0.154, p < .05$). A similar pattern emerges when examining the results of the complier-weighted LATE instrumental variables regression ($\beta_{\text{Pct. Angry Words}} = 0.074, p < .05$). Thus, regardless of the model specification, we find that anger causes Americans to experience partisan schadenfreude when the schadenfreude focuses on an out-party neighbor.

Column 2 shows the intent-to-treat estimate of anger on schadenfreude directed towards an out-party politician. Here we find that anger does not appear to cause Americans to exhibit partisan schadenfreude over an out-party politician being placed under investigation by the FEC for potential campaign finance law violations ($\beta_{\text{Anger}} = 0.071, \text{n.s.}$). A similar result emerges from the complier-weighted LATE results shown in Column 5 ($\beta_{\text{Pct. Angry Words}} = 0.029, \text{n.s.}$). We suspect that the lack of a treatment effect here may be due to one of two reasons. First, it is possible that the precise nature of our vignette about an out-partisan politician was inadequate to elicit

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	Schadenfreude		Pct. Angry Words	Schadenfreude	
	Neighbor	Politician		Neighbor	Politician
	(OLS)	(OLS)	(OLS)	(IV)	(IV)
Treated	0.154*	0.071	2.104***		
	(0.061)	(0.063)	(0.138)		
Pct. Angry Words				0.074*	0.029
				(0.030)	(0.030)
Constant	1.659***	3.358***	0.027	1.655***	3.367***
	(0.043)	(0.044)	(0.015)	(0.044)	(0.044)
R^2	0.002	0.000	0.078	−0.028	−0.012
Adj. R^2	0.002	0.000	0.078	−0.029	−0.012
N	2,893	2,882	2,883	2,862	2,851

***$p < 0.001$; **$p < 0.01$; *$p < 0.05$

Table 2: Anger and Partisan Schadenfreude. This table shows the results of experimental manipulations of anger on the expression of partisan schadenfreude. Columns 1 & 2 show the intent-to-treat effects, Column 3 shows the results of the first stage of our instrumental variables regression, and Columns 4 & 5 show the complier-weighted local average treatment (LATE) effects.

schadenfreude. This could be because our vignette was not able to elicit a sufficiently visceral partisan reaction, or it could be a result of the politician being described as having been potentially guilty of violating campaign finance laws. An implied amount of guilt, as opposed to suffering some sort of misfortune, may work against eliciting individual-level schadenfreude.

A second potential reason that we may not have found a treatment effect here could be due to a ceiling effect: because negativity among the mass public towards party elites is already high (Muraoka et al. 2021), there may simply be less room for experimental inductions of anger to operate in this particular area. The distribution of schadenfreude for an out-partisan neighbor and an out-partisan politician, shown in Figure 1, suggests that this is possible. Indeed, the figures show that the greatest density of schadenfreude towards an out-partisan neighbor is at zero; by contrast, the distribution of schadenfreude towards an out-partisan politician reaches its peak closer to the middle of the schadenfreude scale. The comparison of these two distributions also reveals that there are more individuals who report the absolute highest level of schadenfreude towards an out-
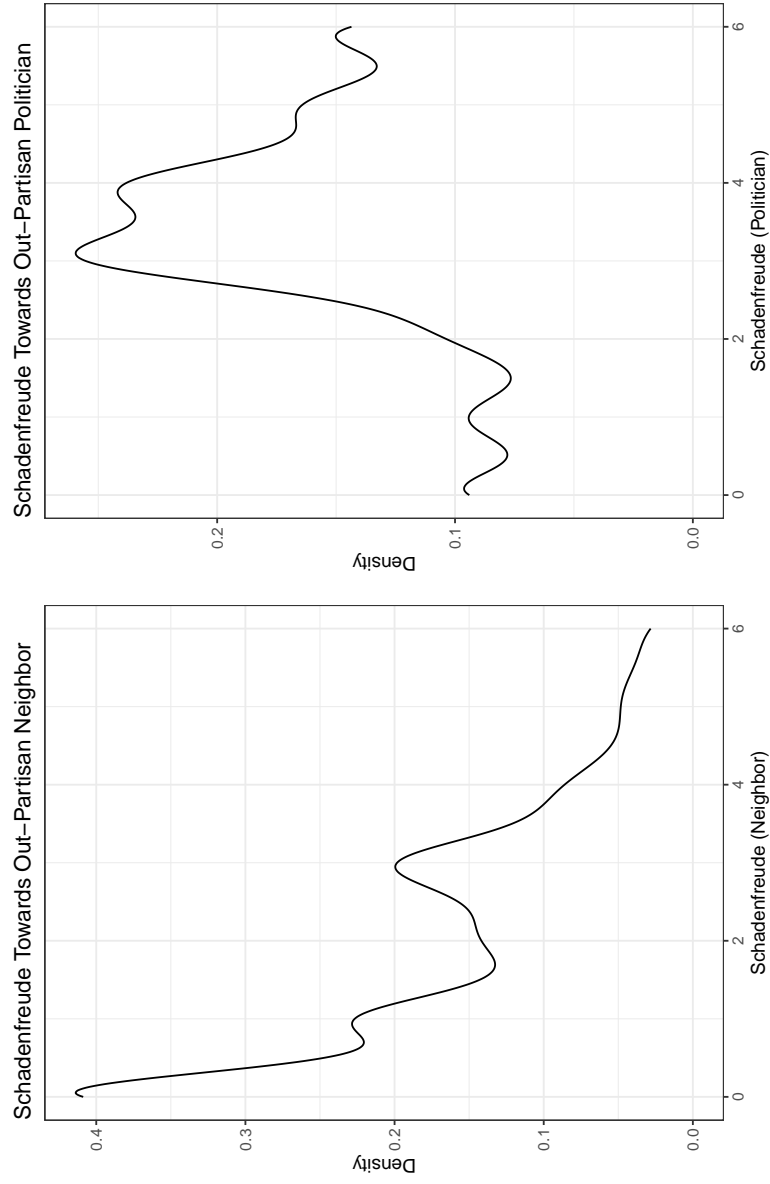
(a) Schadenfreude Towards Neighbor

(b) Schadenfreude Towards Politician

Figure 1: Distribution of Schadenfreude. These figures show the distribution of schadenfreude towards an out-partisan neighbor and an out-partisan politician.

	Neighbor		Politician	
	(OLS)	(IV)	(OLS)	(IV)
Treated	0.096		0.114	
	(0.114)		(0.116)	
Negative Partisanship	2.126***	2.128***	3.664***	3.672***
	(0.172)	(0.177)	(0.146)	(0.150)
Treated x Negative Partisanship	0.129		−0.096	
	(0.251)		(0.218)	
Pct. Angry Words		0.017		0.036
		(0.048)		(0.046)
Pct. Angry Words x Negative Partisanship		0.149		−0.011
		(0.139)		(0.109)
Constant	0.691***	0.681***	1.710***	1.709***
	(0.076)	(0.077)	(0.078)	(0.079)
R^2	0.115	0.094	0.292	0.285
Adj. R^2	0.114	0.093	0.291	0.284
N	2,824	2,794	2,814	2,784

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

Table 3: Anger, Negative Partisanship, and Partisan Schadenfreude. This table shows the results of experimental manipulations of anger on schadenfreude, conditional on one's negative partisan identity.

party politician than an out-partisan neighbor. Accordingly, there may simply be less room for anger to increase individual-level schadenfreude towards an out-partisan politician than there is towards an out-partisan neighbor.

Though we found that anger causes schadenfreude towards an out-partisan neighbor, we do not find this effect to be dependent upon one's negative partisan identity. These results are shown in Table 3. Columns 1 & 3 show the intent-to-treat estimates of anger on schadenfreude conditional on an individual's negative partisan identity. Columns 2 & 4 show the instrumental variable estimates of the complier-weighted LATEs. Regardless of the specification used, we find that the effect of anger on schadenfreude—directed towards both an out-party neighbor and an out-party politician—is not moderated by one's negative partisan identity. This null finding runs counter to our preregistered expectations. We also find that the inclusion of our interaction term between the

	Neighbor		Politician	
	(OLS)	(IV)	(OLS)	(IV)
Treated	0.183*		0.148	
	(0.072)		(0.083)	
Negative Partisanship	0.909***	0.922***	1.573***	1.554***
	(0.082)	(0.088)	(0.077)	(0.079)
Treated x Negative Partisanship	−0.033		−0.124	
	(0.119)		(0.113)	
Pct. Angry Words		0.068*		0.047
		(0.028)		(0.032)
Pct. Angry Words x Negative Partisanship		0.031		−0.039
		(0.074)		(0.063)
Constant	1.193***	1.240***	2.575***	2.689***
	(0.049)	(0.048)	(0.056)	(0.054)
R^2	0.077	0.055	0.203	0.183
Adj. R^2	0.076	0.054	0.203	0.182
N	2,824	2,794	2,814	2,784

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

Table 4: Anger, Negative Partisanship (Median Split), and Partisan Schadenfreude. This table shows the results of anger on schadenfreude, conditional on one's negative partisan identity. Our negative partisanship measure has been dichotomized to indicate those who score above the median on the negative partisanship scale.

anger treatment and our negative partisanship measure causes the treatment indicator to lose its statistical significance. One possible reason for these results could be a lack of statistical power (see, e.g., Gelman 2018). To help shed light on this possibility, we re-estimated the models shown in Table 3 but changed our negative partisanship measure to be a dichotomous variable that captures whether an individual's negative partisanship score is above the median value. These results are shown in Table 4.

The results in Table 4 once again show that anger and negative partisanship (dichotomized at the median value) do not interact to produce individual-level schadenfreude towards an out-partisan neighbor or an out-partisan politician. Our measure of negative partisanship continues to be related to expressing schadenfreude. However, the results in Table 4 differ from those found in

Table 3 in that the coefficient on our treatment variable is once against statistically distinguishable from zero (as in Table 2).[4] This is true when estimating an intent-to-treat effect (Column 1) or a complier-weighted local average treatment effect (Column 2). This provides suggestive evidence that the treatment effect's loss of statistical significance in Table 3 was due to a mechanical reason: given our sample size, the interaction between the treatment indicator and the negative partisanship scale simply cut the data into too many bins.

Of course, this does not address the reason behind our null finding on this interaction term. We suspect that our anger treatment does not interact with one's identity as a negative partisan because negative partisans are likely to be more dispositionally angry than those who do not identify as a negative partisan. If this is true, then our experiment's manipulation of state-based anger simply does not have the ability to meaningfully shift negative partisans' level of anger. The implication of this, then, is that higher levels of state-based anger causes those who are not dispositionally angry—that is, those who are not negative partisans—to "turn off an empathy switch" when it comes to their evaluations of those with whom they disagree politically.[5]

Negative Partisanship, Positive Partisanship, and Anger

The above results have demonstrated that anger causes the individual-level expression of schadenfreude towards an out-partisan neighbor. The results have also shown that this relationship is not affected by one's degree of negative partisanship. However, it is possible that the relationship between anger and schadenfreude is dependent upon both an individual's degree of negative *and* positive partisanship. Because negative and positive attachments to one's party are separate constructs (Bankert 2021), it is possible that anger's effect on schadenfreude might be most pronounced for those individuals who score high on our measure of negative partisanship and low on our measure

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[4]Substantively similar results are obtained when the negative partisanship variable is mean centered and divided by the standard deviation.

[5]We are thankful to an anonymous reviewer for suggesting this phrase to us.

	Neighbor		Politician	
	(OLS)	(IV)	(OLS)	(IV)
Treated	0.167*		0.114	
	(0.067)		(0.068)	
High NP, Low PP	−0.123	−0.021	0.719***	0.780***
	(0.120)	(0.126)	(0.118)	(0.121)
Treated x High NP, Low NP	−0.058		−0.273	
	(0.170)		(0.170)	
Pct. Angry Words		0.074*		0.052
		(0.032)		(0.032)
Pct. Angry Words x High NP, Low PP		0.025		−0.173
		(0.107)		(0.107)
Constant	1.664***	1.647***	3.268***	3.273***
	(0.046)	(0.047)	(0.047)	(0.048)
R^2	0.003	−0.028	0.015	−0.012
Adj. R^2	0.002	−0.029	0.013	−0.013
N	2,836	2,805	2,826	2,795

$^{***}p < 0.001;\ ^{**}p < 0.01;\ ^{*}p < 0.05$

Table 5: Anger, Schadenfreude, and Partisan Attachments. This table shows the relationship between anger and partisan schadenfreude. We include an interaction between anger and a dummy variable for having a score above the median on the negative partisanship scale and below the median on the positive partisanship scale.

of positive partisanship.[6] To examine whether this is the case, we re-estimated the models shown in Table 4 but replaced our dummy variable indicating whether a respondent's negative partisanship score was above the scale median with another dichotomous variable that captures whether a respondent is both above the median on the negative partisanship scale *and* below the median on the positive partisanship scale. The results of these models are shown in Table 5.

The results of this analysis indicate that anger continues to cause individuals to express schadenfreude towards an out-partisan neighbor. And, once again, this result holds whether we estimate an intent-to-treat effect or a complier-weighted local average treatment effect. In neither the case of schadenfreude directed towards an out-partisan neighbor nor an out-partisan politician are we able

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[6]We note that this analysis was not pre-registered and, therefore, should be considered exploratory.

to statistically distinguish the interaction term between anger and high negative partisanship/low positive partisanship from zero. Partisan-directed anger causes individuals to exhibit partisan schadenfreude towards an out-partisan neighbor, and this tendency is not dependent upon one's affect towards the two major political parties.

Conclusion & Implications

The results we have presented suggest that the growth of anger in U.S. politics has the ability to shape how Americans interact and empathize with their fellow citizens. Rather than separating personal evaluations from one's political affiliation, Americans who experience partisan-directed anger are likely to express partisan schadenfreude. However, we find that anger's ability to cause Americans to experience "joy in the suffering" of partisan others is limited in nature. In particular, we find that anger causes Americans to express partisan schadenfreude about an unfortunate event that has befallen an out-party neighbor. Americans' reactions to unfortunate events faced by out-party politicians, by contrast, is not affected by anger. Moreover, our results suggest that the relationship between anger and partisan schadenfreude is not dependent upon one's pre-existing amount of negativity towards the opposing political party.

Though our study has helped to further our understanding of the psychological processes driving extreme attitudes in contemporary American politics, plenty of work remains to be done. For instance, scholars should examine additional sources of potential heterogeneous effects as it pertains to anger and partisan schadenfreude. It is possible that the effect of anger on partisan schadenfreude might differ according to one's media diet or the composition of their peer networks. Replicating our study and accounting for these factors, then, is likely to be a fruitful line of inquiry.

Future work should also examine the interaction between other emotions and negative partisanship as it pertains to the expression of partisan schadenfreude. Though there are plenty of possible emotional substrates to partisan schadenfreude, anxiety is likely to be particularly im-

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portant (Albertson and Gadarian 2015). Additionally, because emotions tend to occur in tandem, future work should explore how anger and anxiety interact with each other to produce patterns of extreme partisan attitudes. With political elites continually appealing to the electorate's emotional states (Gervais 2016; Stapleton and Dawkins 2022), understanding these dynamics could not be more important.

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Appendix

Negative and Positive Partisanship Scales

Negative Partisanship Scale

The following statements comprise the negative partisanship scale:

1. When I talk about this party, I say "they" instead of "we."

2. When this party does well in opinion polls, my day is ruined.

3. I do not have much in common with supporters of this party.

4. I get angry when people praise this party.

5. I am relieved when this party loses an election.

6. When I meet somebody who supports this party, I feel disconnected.

7. When I speak about this party and its supporters, I refer to it as "their party."

8. When people criticize this party, it makes me feel good.

Positive Partisanship Scale

The following statements comprise the positive partisanship scale:

1. When I talk about this party, I say "we" instead of "them."

2. I am interested in what other people think about this party.

3. I have a lot in common with other supporters of this party.

4. When people praise this party, it makes me feel good.

5. When this party does poorly in the polls, my day is ruined.

6. When I meet somebody who supports this party, I feel connected.

7. When I speak about this party, I refer to it as "my party."

8. When people criticize this party, it feels like a personal insult.