The Framing of Marijuana in Black Newspapers

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Abstract

Recent scholarship has demonstrated a shift in media discourse about marijuana, yet few studies investigate how structural conditions influence variation in *engagement* with frames about marijuana. Moreover, given the long history of racialized discourse surrounding marijuana, it is surprising that scholars have not investigated framing in media produced by and for communities of color. Drawing on news articles about marijuana in regional Black newspapers in the United States from 1991 to 2016 (*n* = 2,625), regression analyses reveal that structural factors like political action (e.g., ballot initiatives) and crime rates influence engagement across four unique framing domains: youth, policing, crime, and policy. I argue that, as newsworthy events, ballot initiatives provide opportunities to (re)frame marijuana as a policy issue, whereas conditions of crime shape the extent to which Black newspapers discuss marijuana as a problem impacting youth.

Keywords

marijuana, discourse, framing, Black news, policy, ballot initiatives

Introduction

Since the 1990s, marijuana has moved to the foreground of the U.S. public sphere. Longstanding discourse about the risks associated with marijuana has given way to new frames that center on the potential benefits of cannabis use and policy change (Bonnie and Whitebread II 1970; Mosher and Akins 2019; Newhart and Dolphin 2019). But what accounts for the variation in engagement with frames about marijuana? Given that marijuana was commonly framed as a "Black problem" (Dufton

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2017; Federal Bureau of Narcotics [FBN] 1917), as well as the criminalization of Black individuals on the marijuana issue, it is surprising that little work has investigated the framing of marijuana in Black media. I fill this gap by investigating the factors that influence the engagement with various frames about marijuana in Black newspapers.

I argue that, similar to mainstream news outlets, Black news outlets respond to structural conditions in their local environment, and these conditions matter for engagement with various frames about marijuana. Political contexts, such as the presence of an amenable federal executive branch, or a liberal citizenry in a state, can influence the ways in which Black news media discuss controversial issues like marijuana. Political actions such as elections or legislation, as well as political actors, are newsworthy in Black news media, much as they are in mainstream news outlets (Amenta et al. 2012; Gans 1979; Gamson and Wolfsfeld 1993), and thus shape how and when marijuana is covered. Additionally, lived experiences can also shape perceptions of social issues (Beckett 1994; Snow and Benford 1988). For example, experiences with crime can influence public concern about crime, and thus media attention to social phenomena deemed "criminal." What is less understood, however, is how these structural conditions shape the framing of contentious issues like marijuana.

Understanding the framing of marijuana is important in its own right because these frames can shape public perceptions of marijuana and public opinion on legislation (Beckett 1994; Hudak and Stenglein 2020)—the outcome of which can impact the lives of millions of Americans (Alexander 2010; Caulkins et al. 2012). What is more, focusing on the Black press provides a unique opportunity to investigate whether the framing of contentious issues in non-mainstream news outlets is similarly affected by local conditions, and, more generally, how the Black press contributes to public discourse on contentious issues. Moreover, focusing on non-mainstream newspapers provides general insights into framing processes in news outlets beyond the United States.

In this article, I shed light on Black news' framing about marijuana by focusing on four distinct frames—youth, policing, crime, and policy—between 1991 and 2016. I demonstrate how political actions (e.g., ballot initiatives) and the salience of crime affect engagement with these frames. I argue that these factors provide windows of opportunity to shift frames about contentious issues (see Bail 2012). Importantly, investigating the framing of marijuana in Black newspapers provides a unique opportunity to examine how news media specifically geared toward the needs of the Black community—one that has been disproportionately harmed by Drug War discourse about marijuana—have worked to (re)frame public discussion of a contentious issue.

A Brief History of Mainstream Marijuana Discourse

Scholars of marijuana history argue that, until the 1920s, public depictions of marijuana centered on the medicinal and material benefits of cannabis (Bonnie and Whitebread II 1970; Mosher and Akins 2019; Rosenthal and Kubby 1996), and most of this coverage was positive. In 1930, however, public discourse shifted following President Herbert Hoover's establishment of the FBN and appointment of Harry J.

Anslinger as its commissioner. Tasked with redistributing funds previously designated for alcohol prohibition (Newhart and Dolphin 2019), Anslinger relied on print media to bolster a negative portrayal of cannabis and, thus, ramp up public support for cannabis prohibition. Early efforts linked marijuana use to "Mexicans . . . negroes and whites of the lower class" (FBN 1917:16), and warned that "drug-crazed minorities could harm . . . upper-class white women" (Dufton 2017: 3). Anslinger's public discussions of centered on fear that cannabis was the cause of psychological distress, violence, and crime (Anslinger and Cooper 1937; Caulkins et al. 2012; Slaughter 1987), and he argued that only through prohibition could America's children, women, and society be protected (Mosher and Akins 2019; Newhart and Dolphin 2019; Rosenthal and Kubby 1996). These fears, coupled with the release of *Reefer Madness* in 1936—which linked marijuana use to murder, suicide, and miscegenation—propelled support for the 1937 Marihuana Tax Act, which officially made possession and sale of cannabis and hemp products illegal.

Between 1937 and the 1960s, the contours of mainstream marijuana discourse steadily evolved. For a brief period during the 1940s, the demand for alternative raw materials (to aid in the World War II effort) set off a campaign to encourage the production of hemp (Dufton 2017). After the war, the demand evaporated and the cannabis plant again fell into disfavor. In fact, during the 1950s, started to be framed as a "gateway" to harsher drugs like heroin (Dufton 2017), and a substance that would contribute to societal breakdown (see Beisel 1997).

In the 1960s, shifts in public consciousness brought about shifts in public perceptions about marijuana. What was once thought of as a drug primarily associated with minority groups, marijuana gradually came to be associated with a growing counter-culture of hippies and "burnouts" (Bonnie and Whitebread II 1970; Mosher and Akins 2019). Yet, despite increasingly liberal attitudes (Hudak and Stenglein 2020; Pew Research Center 2013) marijuana policies became more strict. Most critically, in 1970, the Controlled Substances Act classified marijuana as a Schedule I drug—the most restrictive category, reserved for any substance assumed to have a high potential for abuse or addiction and with no known medicinal purpose.

During this time, public discourse around drugs once again became linked with criminality when President Nixon declared a "War on Drugs" (Alexander 2010; Bonnie and Whitebread II 1970; Caulkins et al. 2012; Mosher and Akins 2019). But by the mid-1990s, discourse around marijuana tended to frame the issue in terms of ballot initiatives (medical marijuana in California), the medicinal benefits to patients, and the rights of cannabis users (Mosher and Akins 2019; Newhart and Dolphin 2019). Over time, marijuana discourse began to incorporate notions of "American" values, including discussions of liberty and freedom, as well as a focus on the benefits of legalization for generating revenues that could be used for rehabilitation and tackling issues of crime and policing (Mosher and Akins 2019; Newhart and Dolphin 2019). This brief history highlights the cultural and policy environment that served as a backdrop for mainstream public discourse about marijuana. Given the longstanding negative linkage between marijuana and minority criminality and the impact of the War on Drugs

on communities of color, it is imperative to understand how, against this backdrop, Black media outlets framed the marijuana issue.

Framing and Mainstream News Media

The study of discourse has been integral to advances in sociology, communication studies, and political science (DiMaggio 1997; Lamont 1992; Swidler 1986), and news media has served as a site for investigating changes in the framing of issues over time. According to Ferree et al. (2002), mass media are a master forum critical for making sense of relevant events and issues (Gamson and Modigliani 1989). Citizens become knowledgeable about mainstream public discourse on issues through their access to news media. Moreover, consumption of media (alongside political preferences) can shape public perceptions of issues (Altheide 2009; Gamson and Modigliani 1989; Steensland 2008). Gamson and Modigliani (1989) argue that mass media are an arena where struggles over meaning and interpretations of social issues occur, and these struggles take place through various "frames" about social phenomena. Frames are interpretive packages that assign meaning to a social phenomenon by highlighting certain elements of an issue, event, or experience, at the expense of others. That is, frames help an audience categorize social phenomena (Goffman 1974). Importantly, frames are not innate to phenomena, and do not occur in a vacuum. Rather, frames are affected by actors and context (Benford and Snow 2000; Gitlin 1980). On one hand, frames are attached to phenomena by actors who deploy them in effort to shape public discourse on an issue. For example, organizations enter the discursive field by offering their own diagnoses of and solutions to problems (Bail 2012; Benford and Snow 2000; Entman 1993; Goffman 1974; Snow and Benford 1988; Snow et al. 2007). As a result of the numerous potential actors involved, the same social phenomenon can be framed in multiple ways. Additionally, frames are deployed across a discursive field (Snow et al. 2007; Wuthnow 1989) that sets the limits of acceptable discussion on an issue, and that depends on the sociopolitical environment within which the frame is being deployed. Therefore, frames that articulate (1) widespread beliefs and values—those that resonate with the broader discursive (and sociopolitical) environment (Snow and Benford 1988; Snow 2004) and (2) are both believable and salient (Snow and Benford 1988), typically win out over others (Gamson and Modigliani 1989; McCammon et al. 2001, 2007; Snow et al. 2007).

Contentious issues—those on which there is considerable disagreement—typically result in framing contests wherein multiple sides deploy their preferred frames. As (Olsen 2014) argues, framing contests often emerge on behalf of people from disadvantaged groups (e.g., racial/ethnic identity, political position, or socioeconomic status). Moreover, many contentious issues are based on morality (Gusfield 1963; Lowi 1964; Meier 2001; Mooney and Schuldt 2008), which, in recent years, has ranged from issues like same-sex marriage, to abortion, to gambling (Haider-Markel 1996). Therefore, given disagreements in the discursive environments and the representations of minority positions, contentious issues must overcome a resonance problem—which is often attained by articulating similarities between dominant and disadvantaged

groups (Bernstein 1997; Olsen 2014). This process highlights the importance of investigating non-mainstream news for representation of frames about contentious issues.

News Values: The Social Organization of Mainstream News

What role do news media play in framing? News organizations operate according to news values—a set of procedures about what "counts" as news (Galtung and Ruge 1965) and how these topics should be discussed. In addition to the norms of seeking out official sources (Amenta et al. 2012; Baumgartner and Jones 1993; Gans 1979; Gitlin 1980; Schudson 2002), newsworthiness in mainstream outlets is based on timeliness, the perceived impact of the events being covered, and the proximity of said events to potential readers (Amenta et al. 2012; Galtung and Ruge 1965). In particular, political actions (e.g., initiatives, legislation, and bills) receive the most coverage, given that these decisions have high public impact and include prominent people (e.g., policymakers), and because reporters have increased access to political officials. Therefore, political activity, such as stories about politicians, bills being discussed, or laws being passed, tend to dominate news coverage (Amenta et al. 2012; Gans 1979; Gitlin 1980; Schudson 2002). It is, therefore, reasonable to assume that coverage of political actors or actions serves as a significant driver of discursive change. While many frames about a social issue can enter or exit the discursive field (Bail 2012; Ghaziani and Baldassarri 2011; White 1981), those that center on political actions or that occur during heightened coverage of political action, are considered "newsworthy." In the case of marijuana, coverage of political actions can provide opportunities to deploy new frames about the issue. Therefore, through coverage of political actions related to the marijuana issue, news media can act as drivers of discursive change.

The Role of Local (Structural) Conditions

Beyond political actions, structural conditions also matter in which frames emerge within a discursive field (Gamson and Modigliani 1989; Wuthnow 1989). The frames that "win out" are those that resonate with the lived experiences of the audience (Snow and Benford 1988). Beckett's (1994) objectivist model demonstrates how experience with conditions in the local environment shapes public concern about social issues. Further, objective conditions including unemployment, poverty, and migration all impact what is covered by mainstream news media, as well as how these issues are framed (Benford and Snow 2000; McVeigh et al. 2004; Snow et al. 2007). Taken together, these literatures highlight the impacts that political actions and structural conditions have on framing in mainstream news media. It is unclear, however, whether and to what extent these factors matter for non-mainstream news media—namely, the Black press.

The Black Press and the Framing of Issues

The Black press emerged in 1827 as a venue to cater to the needs, interests, and realities of the Black population (Pride and Wilson 1997). What defined the Black press was that

newspapers were (1) owned and managed by Black Americans, (2) intended for a Black audience, and (3) committed to advocating for racial equality for Black folks (Wolseley 1990). The Black newspapers provided counter-discourse to the pro-slavery sentiments abound in mainstream newspapers (Wolseley 1990), covering issues such as abolition, enfranchisement, and the right to work (Pride and Wilson 1997). Papers within the Black press (i.e., *Freedom's Journal*) sought to uplift the lives of Black individuals in the United States (Vogel 2001). Importantly, the Black press was both activist and political by providing space for topics relevant to the Black community that were largely ignored—or ridiculed—in mainstream news outlets (Johnson 1991).

After Reconstruction, the Black press experienced growth. First, the Black press extended beyond the North into the Southern United States. Next, the Black press' coverage of the *Plessy v. Ferguson* case contributed to both increased readership and new Black papers (Vogel 2001). With growing readership, the Black press became a place of community for many Black Americans. It was a site of deliberation outside the purview of dominant white, mainstream culture (Dawson 1994; Fraser 1992)—a space for "withdrawal and regroupment" (Fraser 1992: 123–4), and helped Black folks connect and clarify their identities. The emergence of the Black press represents the birth of a Black public sphere (Squires 2000)—a place of discussion about local issues relevant to the Black community, and one that authentically represents Black folks' voices (Deuze 2006; Williams Fayne 2021). The Black press continued to thrive into the twentieth century by covering (and taking a stance on) noteworthy political and social developments, including support for Roosevelt's New Deal programs and encouraging mobilization for the civil rights agenda (Wolseley 1990).

What is the current state of the Black press? As a result of growing mistrust in mainstream news media, there has been an overall decline in news readership (Deuze 2006; Herbst 1995; Squires 2000). In particular, minority groups maintain low rates of mainstream news readership, given that these sources often reflect views of white Americans and the ruling class (Deuze 2006). Additionally, research has shown that the Black community is unique in its trust in local news organizations in general, and the Black press in particular, precisely because these small community-oriented organizations are designed to directly serve the needs of their community (Atske et al. 2019). What is more, the Black press remains a source of advocacy for the Black community through both hard advocacy (e.g., coverage of political activism) as well as soft advocacy (e.g., coverage of Black entertainment and culture) (Williams Fayne 2021). In recent years, the Black press has served as a corrective force, such that when news about Black folks breaks, Black readers look to the Black press to get a sense of "what really went on" (Wolseley 1990: 198). Moreover, given mainstream news' history of pushing harmful depictions of Black folks that reinforce negative stereotypes (Entman and Rojecki 2001; Heider 2000), the Black press is *citizen's media*, rather than alternative or oppositional media, and operates as a subaltern counterpublic (Fraser 1992), because it empowers the community by critiquing "social codes . . . and institutionalized social relations" (Rodriguez 2001: 20) as well as "racial capitalism, imperialism, and anti-labor practices" (Squires 2012: 544). The Black press has, therefore, become a space that "facilitates the debate of causes and remedies to the current

combination of political setbacks and economic devastation facing major segments of the Black community" (Dawson 1994: 197).

What is the character of framing in the Black press? To be sure, frames are simply social constructions of issues (Clawson et al. 2003; Gamson and Modigliani 1989; Iyengar 1991;), and framing is ubiquitous (Clawson et al. 2003). Research has shown that both mainstream and Black newspapers engage in framing (Clawson et al. 2003; Nelson and Kinder 1996). This is critical because, as (Nelson and Kinder 1996: 1058) argue, "elites wage a war of frames because they know that if their frame becomes the dominant way of thinking about a particular problem, then the battle for public opinion has been won." Therefore, it is imperative for Black news sources to engage in framing that could shape meanings about issues for (and relevant to) the Black community. Importantly, mainstream news and the Black press are similar in that, for both, newsworthiness matters (Clawson et al. 2003). What differs, however, is that the Black press has a broader array of possible actors and events that journalists consider newsworthy (Clawson et al. 2003). Moreover, while mainstream press tends to focus on the goal of "objectivity" by representing opposing sides of an issue (Gans 1979), the Black press prioritizes taking the stance most favorable to Black folks, and framing issues by focusing on the implications of social and political issues (Clawson et al. 2003).

From this brief history of the Black press, it is clear that not only did it emerge in response to mainstream outlets—to offer counter-narratives to those proffered by White news sources—but did so with an advocacy agenda. Black press newspapers serve to tell stories that resonate with the Black community, while also encouraging political mobilization around a variety of social issues of the day. It is for these reasons that the Black press is an ideal site for investigating framing around the contentious issue of marijuana legalization.

Data and Method

To investigate Black news' engagement with frames about marijuana, I draw on text data from news articles that mention "marijuana"[1] and come from Black newspapers in the United States. Further, I constrain the data to between 1991 and 2016, for three reasons. First, the 1990s are an ideal period for investigation, given that activity around marijuana policy reform sparked in the 1990s. Second, regional newspaper coverage of marijuana remained low prior to 1990.[2] Finally, because many of the independent variables used in the analysis come from the Census, and are therefore measured decennially beginning in 1990, to establish directionality, the outcome variables are measured from 1991 to 2016.[3] Text data from articles come from newspapers found in the ProQuest newspaper database.

Given my interest in how structural conditions shape local framing of marijuana, and because national news sources like the *New York Times* tend to take a national, rather than local, perspective on issues (Earl et al. 2004), I rely on articles from regional newspapers. Articles from regional newspapers enable me to "locate" variation in framing across places (e.g., states) within the U.S. From ProQuest, I selected all regional U.S. news articles that mention "marijuana" between 1990 and 2016 by

Table 1. Articles About Marijuana in Black Newspapers (*N*=2,625).

Newspaper	*n*	Newspaper	*n*
Philadelphia Tribune	434	The Jacksonville Free Press	55
New Pittsburgh Courier	197	Mississippi Link	52
Los Angeles Sentinel	165	Sun Reporter	51
New York Beacon	153	The Boston Banner	48
Call & Post	147	Chicago Citizen	44
Michigan Chronicle	128	Precinct Reporter	38
The Louisiana Weekly	108	Atlanta Inquirer	38
Afro-American	108	The Charlotte Post	37
Tri-State Defender	99	The Culvert Chronicles	36
The Skanner	98	Bay State Banner	33
Michigan Citizen	82	Jackson Advocate	23
Westside Gazette	86	Chicago Independent Bulletin	13
South Florida Times	73	New York Amsterdam News	7
Oakland Post	71	The Richmond Afro-American and the Richmond Planet	4
Sacramento Observer	68	San Francisco Metro Reporter	3
Chicago Defender	65	California Voice	2
The Tennessee Tribune	59		

excluding news articles from large national newspapers (e.g., the *New York Times*, the *Los Angeles Times*, the *Washington Post*, and the *Wall Street Journal*). This resulted in 15,779 regional news articles.

To ensure data quality, I excluded duplicate articles,[4] short articles (e.g., articles with fewer than 100 words), articles outside of the United States,[5] and articles located in the U.S. capitol (Washington, D.C.).[6] Next, I excluded all articles from sources identified as "alternative" or "sensationalized" newspapers by cross-referencing the list of newspapers with the website for each newspaper.[7] This cleaning process resulted in 6,246 regional news articles across 101 newspapers.

Given my specific interests in how communities of color engaged in framing the marijuana issue, I restricted this sample to Black newspapers in the U.S. To identify Black newspapers, similar to the process above, I visited the website for each of the 101 regional newspapers identified above, and removed any source that did not explicitly identify itself as a newspaper serving the Black community. This process resulted in 2,630 regional articles about marijuana, across thirty-three Black newspapers.

Finally, because data for my independent variables began in 1990, I restrict articles to those published between 1991 and 2016, which results in 2,625 news articles. The frequency of articles in each newspaper is depicted in Table 1.

The dependent variables (explained, in detail, below) are measured as an article's *degree of engagement with* each frame. That is, the dependent variables are scales. As such, I use ordinary least squares regression to estimate the models. Because variation in engagement with a frame may be associated with state-level differences

(e.g., heterogeneity in enforcement of marijuana laws), I control for state-level variation by holding these effects constant, using state-level fixed effects models, which is analytically similar to including a dichotomous variable for each state. The state-evel fixed effects approach controls for all unobserved, time-invariant state-level characteristics.

Dependent Variables

Identifying Frames. For each article, I construct a measure of engagement with four unique concepts (here, referred to as frames)—"youth," "crime," "policy," and "policing." I select these four, for two reasons. First, these frames have been identified in prior research on marijuana discourse (Beckett 1994; Lévesque 2022; Mosher and Akins 2019). For example, research has long demonstrated that public conversations surrounding marijuana have centered on marijuana's potential effects on children and youth, and have continued to be associated with criminality (Mosher and Akins 2019). As such, I include two concepts to capture these frames: "youth" and "crime." Scholars have also highlighted central narratives in debates about marijuana policy reform (whether medicalization of legalization), including the ability to redirect police resources away from hyper-policing in communities of color (Alexander 2010; Caulkins et al. 2012; Davis 2003; Mosher and Akins 2019). Given these discussions often co-occur with proposals for policy change, I include frames encompassing "policy" and "policing."

A second reason for the selection of these four frames is data-driven. I rely on topic modeling—a text analysis method employed to discover the latent structure or sets of topics in documents. In topic modeling, documents are treated as random mixtures of words (e.g., a bag of words) underlying a set of undetermined "latent" topics, and "each topic is characterized by a distribution over words" (Blei et al. 2003: 996). In topic modeling, the researcher selects a number of topics, k, presumed to exist in a corpus of text. Then, similar to factor analysis, the text analysis algorithm analyzes the text of all documents in the corpus, and identifies common words associated with each latent topic.[8] Accordingly, these topics can be understood as latent "themes" that the authors may have relied upon when writing the articles in the corpus.[9]

The researcher has the freedom to select any number of topics, k, and the algorithm will attempt to cluster the words associated with each topic into coherent themes. Thus, this process is iterative in that the researcher can select as many or as few topics as they like, and through close reading of the words in each topic, the researcher must decide to increase or decrease the number of topics the algorithm should attempt to identify. Here, I selected a five-topic solution for the text analysis algorithm,[10] which resulted in four coherent topics. In Table 2 below, I show the top ten word-stems associated with each of these five topics. As can be seen, there is some degree of clarity in the word-stems associated with each of the first four topics, which represent the four frames ("youth," "crime," "policy," and "policing") used in this analysis.

To measure engagement with a given concept or frame, I rely on *Concept Mover's Distance* (CMD, Stoltz and Taylor 2019)—a measure of each article's

Table 2. Frames About Marijuana in Black Newspapers, Identified by Five-Topic Model Solution.

Youth	Crime	Policy	Policing	(Misc.)
drug	drug	state	offic	black
use	polic	use	polic	peopl
school	charg	law	arrest	polici
student	black	legal	citi	life
program	sentenc	citi	peopl	music
peopl	prison	medic	attorney	play
polici	crimin	peopl	report	show
youth	old	polici	case	access
children	arrest	bill	depart	an
alcohol	crime	communiti	car	day

degree of closeness to each focal concept or frame. For a given focal concept, the researcher identifies a keyword (or keywords) associated with that concept. According to Stoltz and Taylor (2019: 297), the CMD algorithm creates a distance score for each article by calculating "the [cosine] distance between the words of that [article], and an ideal pseudo-document composed of only terms denoting that specified concept."[11] For each article, the distance score is converted to an engagement or closeness score by inverting the values, and are standardized (taking on a mean of 0 and standard deviation of 1).[12] These values, similar to a Z-score, represent a standardized distance from the *mean engagement with the concept* across all articles in the corpus, range from $-\infty$ to $+\infty$, and reflect a document's degree of engagement with a concept. Positive scores indicate higher-than-mean engagement, whereas negative scores reflect lower-than-mean engagement. In this article, I rely on four dependent variables—the CMD scores used to measure each article's engagement with each of the four frames about marijuana.[13]

Independent Variables

Given my argument regarding the impact of structural factors on frame engagement, I include measures of political actions and crime rates within each state as predictors. Therefore, from the Secretary of State websites for each state during this period, I include (1) a measure of whether or not recreational marijuana was on the ballot in the year the article was written, and (2) a measure of whether or not medical marijuana was on the ballot in the year the article was written. Additionally, I rely on yearly crime rate data, for every precinct, from 1960 to 2020. These compiled data come from the Uniform Crime Reporting Program (Kaplan 2021), are aggregated to the state level, and are grouped into violent (murder, rape, aggravated assault, and robbery) and property (burglary, motor vehicle theft, larceny, and arson) crimes.

Control Variables

To assess articles' engagement with various frames about marijuana, it is necessary to account for several features of articles and newspapers, the federal political environment, national public discourse, and of U.S. states that might also be associated with an article's engagement with various frames. Unless otherwise mentioned, all control variables are measured in the year prior to the publication of an article.[14]

First, there are several political features of states which might shape discourse about marijuana, and the engagement with frames in articles in a given year. Frame engagement might be related to public support for legalization. I, therefore, include marijuana public opinion data from the Roper Center for Public Opinion Research, using various polls from 2011 to 2016. The data come from a series of polls measuring public opinion on marijuana, and include CBS news polls from 1994 (CBS News Poll), 2009 (CBS News Poll), 2010 (60 Minutes/Vanity Fair Poll), 2011 (CBS News/60 Minutes/Vanity Fair Poll), 2013 (CBS News/60 Minutes/Vanity Fair Poll), and 2016 (CBS News Poll). To measure supportive marijuana public opinion, from each poll, I draw on data from the question: "Do you think that the use of marijuana should be made legal, or not?" Every response for each poll is weighted (based on the poll-specific weighting criteria), and I follow Weakliem and Biggert (1999) in aggregating individual responses to the state level. Importantly, data between polls are linearly interpolated, and to test their effect on the frame engagement, articles are matched with polling data representing the prior year (e.g., $t-1$).[15] Because states with a liberal citizenry may be more likely to not only support marijuana, but also to discuss marijuana in non-negative ways, I incorporate a measure of liberal citizen ideology. As such, I draw on data from (Berry et al. 1998) to measure citizen ideology. This measure, for every year, is based on the ideology score for every member of the U.S. Congress (e.g., one for every district), the ideology of their (hypothetical) challenger, and election results, which is then weighted proportional to the member's share of support in the district. This measure is more complete than relying on election results alone. Values on this variable range from 0 to 100, with higher scores indicating a more liberal citizenry, and span from 1960 to 2018.[16]

There are also article-level features that are relevant to the degree of engagement with a particular frame. For example, longer articles offer more space or opportunities to engage with an increasing number of topics (Ader 1995; Andrews and Caren 2010; Shoemaker 1984). In other words, longer articles might be more likely to engage in framing (of any kind) on the issue of marijuana. Therefore, I control for article length, measured as the number of words in each article. Additionally, given heightened overall attention to marijuana in recent years (Mosher and Akins 2019), I include a measure for the year in which an article was written.

Relatedly, it is equally important to account for features of the newspaper from which an article is published. Unfortunately, given inconsistencies in the reporting of circulation rates, and the homogeneity of political orientation across Black

newspapers,[17] I account for variability between news sources by including a dummy variable for each newspaper.

It is critical to account for the national political context within which each article was written. Research has demonstrated that the Obama administration may have been a catalyst for marijuana reform (Dufton 2017; Mosher and Akins 2019). Released under the Obama administration, the Ogden Memo (Ogden 2009) stated that the federal government would not prioritize prosecuting federal marijuana law violations in states that had liberalized marijuana policy. And although the initial Cole Memo (Cole 2011) pushed back against the notion of a lax approach to the enforcement of marijuana laws, the second Cole memo (Cole 2013) signaled a "wait-and-see" approach to marijuana enforcement. As such, I include a time-related dummy variable measuring whether the articles had been published during the Obama administration (2009–2016).

Discursive opportunities for discussing marijuana—that is, the prevalence of marijuana in public discourse—also matter for frame engagement. The logic is that, if marijuana is prevalent in public discourse, marijuana might also be prevalent in newspaper coverage. As such, I rely on Google's Ngram viewer (Google Books Ngram Viewer 2019), which uses the 2019 American English Google Books corpus (a digitized version of roughly 155 billion words deriving from millions of American books and magazines), to detect the prevalence of marijuana in public discourse. I conducted a series of searches using common phrases related to marijuana (e.g., "cannabis," "weed," and "marihuana") and selected the terms "marijuana" and "cannabis," which resulted in the highest number of hits in the Google Books corpus, and extracted the percentage of articles/books that included the phrase.

Further, there are several structural/demographic features of states that may be related to an article's engagement with particular narratives. Unless otherwise noted, all variables come from the Census or the American Community Survey. The presence of newsrooms in a location—and therefore, the likelihood that marijuana is covered and the framing of that coverage—is related to the size of the population. As such, I include a measure for the natural log of the total population in the state in which the article was written. Moreover, the Black press framing of marijuana (e.g., frames that highlight the concerns of the Black community) may depend on the size of the Black population. As such, I include a measure for the natural log of the population that identifies as Black. Education is associated with liberal attitudes toward marijuana (Pedersen 2009), and increasing support for marijuana legalization may be attributed, in part, to increases in the size of the college-educated population (Rosenthal and Kubby 1996). I, therefore, include a measure of the percent of the population aged 25 or older with a bachelor's degree. Importantly, given that many efforts to legalize recreational marijuana through the ballot initiative center on the ability to generate revenue (Cambron et al. 2017; Himmelstein 2020), places with high unemployment may be more prone to support legalization as a source of revenue generation, which, in turn, may shape the presence and type of coverage of marijuana in newspapers. As such, I include a measure for the percent of the population that is employed. Descriptive statistics for variables used in the analyses are shown in Table 3, below.

Table 3. Descriptive Statistics for Variables (*N* = 2,625).

Variable	Mean	SD	Min	Median	Max
Youth Frame	0.00	1.00	−2.29	−0.15	4.61
Policing Frame	0.00	1.00	−2.73	0.01	3.76
Crime Frame	0.00	1.00	−2.35	−0.13	4.93
Policy Frame	0.00	1.00	−2.84	0.05	3.07
Recreational Marijuana on Ballot	0.04	0.20	0	0	1
Medical Marijuana on Ballot	0.04	0.20	0	0	1
Violent Crime (logged)	1,533.91	733.25	42.86	1,536.94	2,696.49
Property Crime (logged)	2,838.49	1,360.78	55.65	2,796.99	4,761.59
Percent Favoring Legal Marijuana[a]	36.12	12.78	5.26	36.59	72.22
Liberal Citizen Ideology	54.19	10.40	29.32	53.69	90.54
Percent College	16.05	2.25	10.92	16.09	21.69
Percent Employed	58.85	2.11	53.91	58.69	65.85
Total Population (logged)	16.30	0.63	14.85	16.33	17.41
Black Population (logged)	14.18	0.63	10.74	14.16	14.92
Year	17.64	6.72	1	19	26
Article Length	1,058.86	637.66	174	953	10,776
Salience of Marijuana in Public Discourse	0.001	0.0001	0.001	0.001	0.001
Obama Presidency	0.54	0.50	0	1	1

[a]Values linearly interpolated.

Results

Engagement With Frames Across Time

Figure 1 presents variations in the standardized CMD scores (e.g., CMD scores, converted to *Z*-scores) of engagement with each frame, from 1991 to 2016. The origin (horizontal zero line), for each frame, represents the *average* standardized engagement (CMD score) across all articles in the corpus. For example, if an article received a CMD score for the "Youth" frame that was equal to the average engagement with "Youth" across all articles (mean CMD), the article's CMD score for the "Youth" frame, when standardized, would equal zero, and would lie at the origin. Articles with stronger engagement with a frame will have higher CMD scores, whereas articles with weaker engagement will have lower CMD scores. Thus, when standardized, articles with positive standardized CMD scores possess above-average engagement with a frame, and articles with negative standardized CMD scores possess below-average engagement with a frame. Importantly, there is variability in the number of articles published in each year under investigation. As such, for each year, I take the mean of the standardized CMD scores for articles published in that year, for a given frame. Therefore, instead of presenting the standardized CMD score for each article, in Figure 1, the blue line represents the average standardized CMD
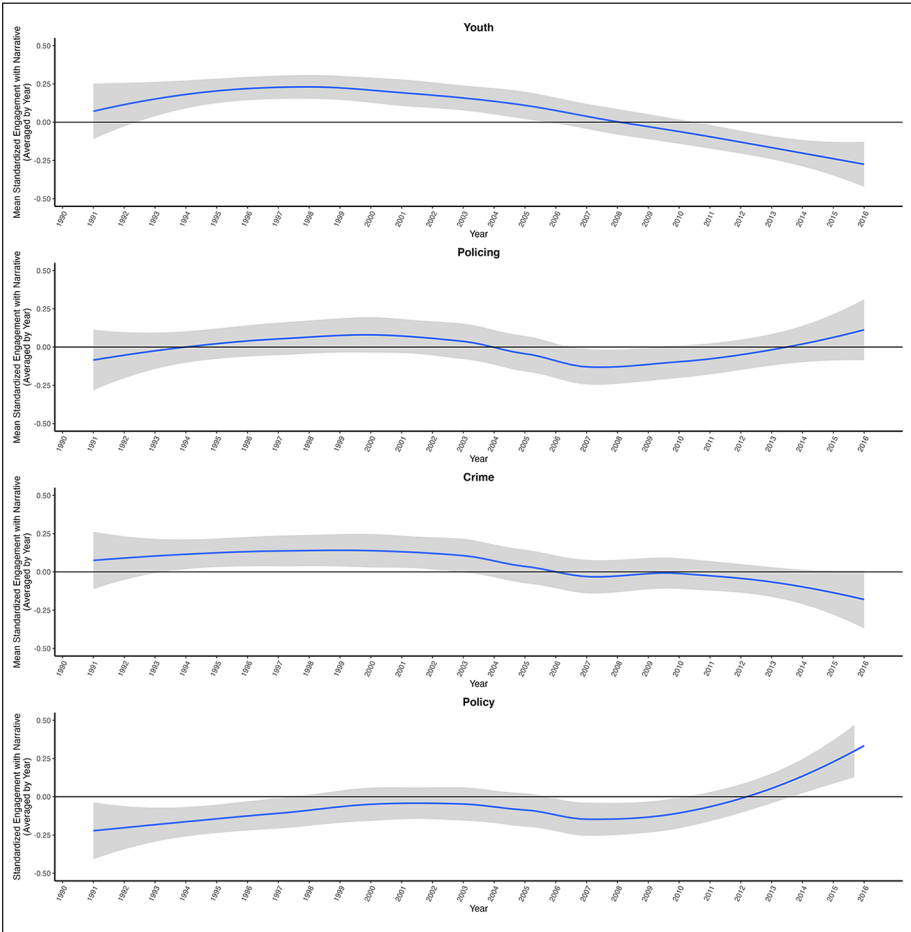
Figure 1. Standardized engagement with each narrative over time (averaged by year).

score for each year, and the grey band represents the 95 percent confidence interval around the mean. Given that this plot represents over-time changes in engagement (for each frame) relative to the mean engagement across all articles (at the origin), the line in each plot tends to center on the mean. As can be seen in Figure 1, Black news articles about marijuana varied in terms of their engagement across the four frames. Below, I highlight examples of articles and their engagement with each of the frames.

First, articles tended to have above-average engagement with the "youth" frame between 1991 and 2008—reaching peak engagement in 1998 and becoming decreasingly engaged thereafter. For example, one article identified as having high engagement with the youth frame comes from the *Chicago Independent Bulletin* in 2004, and demonstrates the centrality of the youth frame in the discussion of marijuana:

marijuana is the primary drug of choice for 66% of all black youth admitted for drug treatment, as drug abuse compared to 49% of all asian and pacific islander youth admissions

Young blacks are affected disproportionately by some of the societal risk factors most often identified as contributing to drug use. These risk factors include higher-than-average teen pregnancy rates, poverty, and lower educational attainment; due in large part to the large number of youth who are truant or drop out of school.

This article reveals the level of concern for Black youth with regard to marijuana and marijuana use. Yet, given the article's focus on "risk factors" that make Black youth prone to drug use, it is unsurprising that engagement with this type of framing of marijuana began to wane into the late 2000s.

Articles had variable engagement with the "policing" frame. Specifically, between 1991 and 1994, and between 2004 and 2013, articles had below-average engagement with the "policing" frame. In context, engagement with this more punitive frame tends to coincide with statewide ballot initiatives, and thus, provide reasons for news media to focus on the justice-system effects of progressive marijuana policy change. Here, there was above-average engagement with "policing" that peaked in the mid-nineties (medical marijuana was on the California ballot in 1996), and again, above-average engagement emerged in the early-to-mid-2010s (when many states had recreational initiatives on ballots). One article with high engagement with the policing frame comes from the *Sacramento Observer* in 2012:

[W]hile crime is down, black arrests are up

28 percent of those arrested were black and 69.4 percent were white. In other words, the arrest rate for blacks was more than double that of whites.

[C]riminal justice advocates say that ending the war on drugs is critical to decreasing the number of arrests in the black community.

I can walk up to you and in three words have probable cause: "I smell marijuana" . . . they use it all the time, all day long . . . [But] young people should know their rights and learn how to exercise those rights.

This article reveals not only the problems of over-policing marijuana in communities of color, but, also the struggle to end prohibition and the War on Drugs mentality that contribute to over-policing Black bodies and the Black community. Engaging with a policing frame often took on one or both of two characteristics—identifying problems and/or offering solutions. As such, it is clear why engagement peaked twice during the period of investigation.

Marijuana articles in Black newspapers tended to have above-verage engagement with the "crime" frame between 1991 and 2006. Thereafter, news articles had below-average engagement with framing marijuana as "crime" or associating it with

criminality. For example, one article with high engagement with the crime frame comes from the *New Pittsburgh Courier* in 1994:

> [The] nature of crime shifting

> The city reached its highest murder rate since 1986, when police logged 47 homicides. More than 80 percent of the homicides were black-on-black crime, figures show. Aggravated assaults also rose in 1993, up 12.2 percent from the prior year . . .

> Drug arrests rose 10.3 percent over the past year, most of them crack- or marijuana-related.

As seen in this article, the framing of marijuana remained at the level of crime reporting. That is, the article tended to focus on conveying information about crime, and discussion of marijuana was placed in context of how it affected crime.

Finally, articles tended to have below-average engagement with the "policy" frame between 1991 and 2012, and above-average engagement thereafter. One article with high engagement with the policy frame comes from the *Afro-American* in 2015:

> Baltimore city's 43 district to pass a legalization bill to tax and regulate the sale of marijuana in the state.

> [The] bill would likely contain a provision granting expungements to anyone convicted of simple possession for some period, perhaps 10 years, prior to legalization . . . [T]hose convicted of distribution or intent to distribute would not receive similar consideration, since the unlicensed sales of marijuana would still be illegal under a tax and regulate measure.

In this article, the discussion of marijuana was couched in language about the upcoming legislation in Maryland, and the consequences of passage. That is, the article centered on the remediating effects of changes to cannabis laws.

Explaining Black News' Engagement With Marijuana Frames

Do structural conditions influence engagement with specific frames about marijuana in Black news? Table 4 presents ordinary least squares (OLS) regression estimates of the relationship between key predictors and an article's engagement with the four frames.[18] It is important to note that the key independent variables—whether or not recreational or medical marijuana was on the ballot in a given state and year when a newspaper article was published, and the crime rate in the prior year—were significantly related to increasing engagement with three of the four frames. These findings lend support to my argument about the impact of political actions and crime conditions serving to therefore shape discourse on contentious topics.

Individually, the models depict different relationships between political actions, crime, and frame engagement. Model 1, depicts estimates of engagement with the youth frame. Here, we can see that neither political actions influenced engagement

Table 4. Effects on Engagement With Frames about Marijuana in Black U.S. Newspapers: OLS Regression Estimates With Controls for State-Level (Fixed) Effects.

	Youth	Policing	Crime	Policy
	(1)	(2)	(3)	(4)
Rec. Marijuana on Ballot	−0.081 (0.088)	0.086 (0.055)	−0.245 *** (0.073)	0.428*** (0.064)
Med. Marijuana on Ballot	−0.137 (0.099)	−0.028 (0.063)	−0.204 *** (0.056)	0.259** (0.101)
Violent Crime (logged)	−0.001** (0.0004)	−0.0004 (0.001)	−0.0002 (0.001)	−0.0003 (0.0004)
Property Crime (logged)	0.001*** (0.0002)	0.0002 (0.0003)	0.0001 (0.0003)	0.0001 (0.0002)
Controls	Yes	Yes	Yes	Yes
Observations	2,625	2,625	2,625	2,625
R^2	0.062	0.050	0.036	0.089

Note. Robust standard errors in parentheses.
**p < .01. ***p < .001 (two-tailed test).

with the youth frame, yet violent crime was associated with a decrease in engaging with the youth frame, whereas property crime was associated with increasing engagement in the youth frame. Across Black news articles discussing marijuana, a one-unit increase in the violent crime rate is associated with a .001-unit decrease, and the property crime rate is associated with a .001-unit increase in engagement with the youth frame. Additionally, among the controls, articles demonstrated increasing engagement with the youth frame if they appeared earlier in time, and came from a state with high employment. The remaining variables were unrelated to the outcome.

Model 2, depicts estimates of engagement with the policing frame. Importantly, ballot initiatives and crime rates were unrelated to engagement with the policing frame. Beyond this, shorter articles, and states with an increasingly conservative citizenry, with higher support for legalization, higher employment rates, and larger populations saw increasing engagement with the policing frame.

Model 3, depicts estimates of engagement with the crime frame. Here, having recreational or medical marijuana on the ballot was significant and negatively associated with engagement with the crime frame. These findings suggest that political actions tend to dominate and shape the ways in which Black newspapers discuss the marijuana issue. In particular, recreational marijuana being placed on the ballot in the same year in the same state as an article is associated with a .245-unit decrease in discussions of crime, and medical marijuana being on the ballot was associated with a .204-unit decrease in engagement with the crime frame. Interestingly, although crime rates were relevant for engaging in framing marijuana as a problem related to youth, higher crime rates were unrelated to framing marijuana as a crime. Again, this lends support to the arguments related to how news media tend to center on political actions, above others. Moreover, articles increasingly engaged with the crime frame if they were newer articles, were shorter articles, and came from states with an increasingly conservative citizenry, with higher support for legalization, with larger college-educated populations, and with larger populations.

Finally, Model 4 shows engagement with the policy frame. Having recreational marijuana or medical marijuana on the ballot in a state was significant and positively associated with engagement with the policy frame. That is, marijuana reform initiatives were associated with a push toward framing marijuana around policy. Additionally, articles increasingly engaged with the policy frame if they were shorter articles, or came from states with a large conservative citizenry.

Conclusions

Scholars of discourse often focus on the presence or absence of frames in media. In this article, however, I account for variation in discourse about marijuana in Black news by focusing explicitly on engagement with various frames about marijuana (specifically, youth, policing, crime, and policy). I accomplish this by appraising various arguments about framing, including those that focus on political actions and structural conditions. As I have demonstrated, some factors (rather than others) uniquely contribute to increases in engagement with specific frames about marijuana. I draw on a novel measure of engagement—*CMD* (Stoltz and Taylor 2019)—across frames, and argue that using such a measure is a step forward in understanding the spectrum of engagement with frames.

I argue that social structural conditions matter for engagement with various frames about marijuana. In fact, I find that, given the social organization of the news, political actions (e.g., medical and recreational ballot initiatives) within structural environments matter for stronger engagement with some frames (e.g., policy) over others (e.g., crime), but are unrelated to others still (e.g., youth and policing). Moreover, conditions like exposure to crime can influence the extent to which marijuana is framed. I argue that, as newsworthy social phenomena, these conditions provide framing opportunities, which enable changes in the type of frame engaged and across time.

The current study investigates the characteristics of discursive change on contentious political issues. These findings not only lend support to my claims, but also demonstrate how regional news sources exhibit variability in their engagement with frames about marijuana. Importantly, given the impact the War on Drugs has had on communities of color, it is unsurprising to see Black news increase its engagement with topics related to policing and policy over time. Specifically, framing marijuana as a policy issue serves to resonate with broader populations, whereas framing marijuana around policing may serve to resonate with the experiences of those most harmed by enforcement of marijuana laws. It is interesting, however, that engagement with the crime frame decreased over time. Perhaps, these trends diverge given recent discussions around over-policing in communities of color (Alexander 2010), and the general shift away from linking marijuana with crime. While the current study tackles variation in framing marijuana in Black news, this evolution may also exist in national news and these shifts may also impact political outcomes (Lévesque 2022; Rosino and Hughey 2018; Vann Jr 2022).

This work addresses gaps in the communications, political science, sociology, and criminology literature by investigating how structural conditions not only affect framing processes, but the extent to which various frames are engaged. Given the tradition of framing research to investigate whether or not frames exist, this work follows a more recent line of inquiry investigating the effects and precipitants of engagement with frames within discursive fields. To advance the study of framing on contentious issues, as mentioned above, future research should explore how engagement with frames waxes and wanes over time. Moreover, this line of work would benefit from investigating how non-U.S. news media develop and engage with frames about social issues. Given the limitations of the current study, future research would benefit from tracking the activities of marijuana (and other) advocacy organizations as it relates to their involvement in the marijuana framing process. Such an investigation could consider the effect of organizational tactics, including protest activity, endorsements, or vocal support, on how the marijuana issue is discussed. Scholars might also consider how engagement with frames can shape public opinion as well as support for policy reform. It is important to recognize that media representations of contentious issues like marijuana (e.g., in movies, television, news, social media, and public discourse) may not only influence public opinion, but also the likelihood that the issue gets transformed into a "problem" in need of addressing through progressive policy reform. In short, this work contributes to a growing chorus of scholarship on discursive change (Bail 2012; Bateman et al. 2019; Benford and Snow 2000; Gamson and Modigliani 1989;). In particular, this article broadens the scope of scholarly study by investigating the changing engagement with frames about contentious political issues.

Appendix

Table A1. Effects on Engagement With Frames About Marijuana in Black U.S. Newspapers: OLS Regression Estimates With Controls for State-Level (Fixed) Effects.

	Youth	Policing	Crime	Policy
	(1)	(2)	(3)	(4)
Rec. Marijuana on Ballot	−0.081 (0.088)	0.086 (0.055)	−0.245*** (0.073)	0.428*** (0.064)
Med. Marijuana on Ballot	−0.137 (0.099)	−0.028 (0.063)	−0.204*** (0.056)	0.259** (0.101)
Violent Crime (logged)	−0.001** (0.0004)	−0.0004 (0.001)	−0.0002 (0.001)	−0.0003 (0.0004)
Property Crime (logged)	0.001*** (0.0002)	0.0002 (0.0003)	0.0001 (0.0003)	0.0001 (0.0002)
Percent Favoring Legal Marijuana[a]	0.002 (0.003)	0.008* (0.004)	0.008* (0.003)	0.004 (0.005)
Liberal Citizen Ideology	−0.007 (0.004)	−0.011*** (0.003)	−0.011*** (0.003)	−0.007* (0.004)
Percent College	0.130 (0.098)	0.039 (0.070)	0.227* (0.107)	−0.102 (0.081)
Percent Employed	0.085** (0.031)	0.058** (0.019)	0.034 (0.020)	0.011 (0.034)
Total Population (logged)	1.180 (0.895)	2.894*** (1.041)	2.482** (0.795)	0.502 (1.037)
Black Population (logged)	−0.636 (0.931)	0.272 (1.000)	0.444 (0.712)	0.543 (0.981)
Year	−0.048* (0.023)	−0.022 (0.013)	−0.069** (0.025)	0.027 (0.016)
Article Length	0.0001 (0.00004)	−0.0002*** (0.00004)	−0.0001* (0.0001)	−0.0003*** (0.0001)
Salience of Marijuana in Public Discourse	48.973 (387.224)	−79.660 (311.337)	−161.530 (291.551)	−15.943 (288.991)
Obama Presidency	−0.143 (0.147)	0.003 (0.090)	0.030 (0.098)	−0.049 (0.082)
Bay State Banner	0.007 (0.064)	0.246* (0.106)	0.196* (0.087)	−0.228* (0.110)
California Voice	−1.402*** (0.061)	0.104 (0.076)	0.382*** (0.057)	0.257** (0.090)
Chicago Citizen	−0.410*** (0.098)	−0.328** (0.116)	−0.390*** (0.090)	−0.262 (0.147)
Chicago Defender	−0.296*** (0.025)	−0.221*** (0.018)	−0.258*** (0.017)	−0.330*** (0.017)
Jackson Advocate	0.205*** (0.028)	0.177*** (0.022)	0.216*** (0.022)	0.141*** (0.027)

(continued)

Table A1. (continued)

	Youth	Policing	Crime	Policy
	(1)	(2)	(3)	(4)
Los Angeles Sentinel	−0.393*** (0.011)	−0.537*** (0.014)	−0.427*** (0.016)	−0.620*** (0.017)
Michigan Chronicle	0.442*** (0.007)	−0.330*** (0.010)	−0.272*** (0.007)	−0.073*** (0.009)
New Pittsburgh Courier	0.125*** (0.009)	−0.139*** (0.014)	−0.026* (0.011)	−0.266*** (0.011)
New York Amsterdam News	0.126* (0.062)	0.167*** (0.057)	0.028 (0.083)	0.196** (0.060)
New York Beacon	0.263*** (0.049)	0.177*** (0.049)	0.046 (0.084)	−0.088 (0.058)
Oakland Post	−0.180*** (0.031)	0.183*** (0.028)	−0.241*** (0.041)	0.229*** (0.034)
Precinct Reporter	−0.001 (0.010)	0.127*** (0.010)	0.094*** (0.018)	0.035** (0.012)
Sacramento Observer	0.174*** (0.018)	−0.056* (0.026)	−0.272*** (0.024)	0.054 (0.028)
San Francisco Metro Reporter	−0.696*** (0.054)	−0.312*** (0.080)	−0.602*** (0.078)	0.188 (0.105)
South Florida Times	−0.354*** (0.045)	−0.301*** (0.044)	−0.179*** (0.036)	−0.337*** (0.043)
The Jacksonville Free Press	−0.535*** (0.013)	−0.003 (0.018)	0.078*** (0.017)	−0.105*** (0.016)
The Richmond Afro-American and the Richmond Planet	−0.381* (0.194)	0.722** (0.248)	0.504** (0.182)	0.422 (0.261)
The Tennessee Tribune	−0.198*** (0.034)	−0.269*** (0.033)	−0.356*** (0.026)	−0.033 (0.035)
Observations	2,625	2,625	2,625	2,625
R^2	0.062	0.050	0.036	0.089

Note. Robust standard errors in parentheses.
[a]Values linearly interpolated.
*p < .05. **p < .01. ***p < .001 (two-tailed test).

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Notes

1. This does not include variants of the word "marijuana," nor does it include the word "cannabis." Further investigation of articles in the ProQuest database (within the Black newspapers listed below, and between 1990 and 2016), reveals that the inclusion of the term "cannabis" (e.g., "marijuana OR cannabis") resulted in only forty-eight additional news articles. Given the similarities in these sets, I rely only on the articles that mention "marijuana."
2. This refers to "low" coverage identified in the ProQuest database when accessed in 2017.
3. Covariates are measured at time t whereas the outcome variables are measured at time $t+1$.
4. This includes articles that were exact matches and those that were over 25 percent match per the Levenshtein Distance using a fuzzy string-matching algorithm.
5. ProQuest sometimes mistakenly identifies non-U.S. articles when only-U.S. articles are specified.
6. Articles published in Washington, D.C. often take a national (rather than local) focus on issues.
7. In cases where a website did not exist, I referred to information in the Wikipedia entry for the newspaper.
8. Here, I rely on the tm package in the R statistical software.
9. The topics are conceptualized as weighted distributions over words, such that, for example, if the first topic had a .15 probability or loading on the word "school," there is a 15 percent chance that a random word sampled from the first topic would be the word "school."
10. The selection of a larger number of topics resulted in incoherent clusters.
11. Once a focal concept is selected, the pseudo-document is generated from list of over 1 million word vectors. That is, the algorithm finds the vector of words that belong to a concept, and this vector contains only those words that are strongly associated with the selected

concept. This is a high-quality source of data that was created by Facebook's AI Research team (Bojanowski et al. 2017) and trained on Wikipedia in 2017, the UMBC web-base corpus, and statmt.org news datasets.

12. $$\text{CMD}_D = \left| \left(\frac{\text{RWMD}_D - \overline{\text{RWMD}}}{\sqrt{\dfrac{\sum_{D=1}^{n} \text{RWMD}_D - \overline{\text{RWMD}}}{n-1}}} \right) \times -1 \right| \tag{1}$$

In this equation, the engagement or closeness score to a given concept for document/article D, $\left(\text{CMD}_D \right)$ is given by taking the difference between the relaxed word mover's distance for article D $\left(\text{RWMD}_D \right)$ and the average relaxed word mover's distance across all articles in the corpus $\left(\overline{\text{RWMD}_D} \right)$, all over the standard deviation for the relaxed word mover's distance across all articles $\sqrt{\dfrac{\sum_{D=1}^{n} \text{RWMD}_D - \overline{\text{RWMD}}}{n-1}}$.

13. Within the field of "computational social science" (Bail 2012, 2016; DiMaggio 2015), there is a suite of techniques known as automated text analysis, many of which—including topic modeling and structural topic modeling—are inductive tools that cluster documents/texts into "topics" based on co-occurring keywords, and are designed to help the researcher identify themes, narratives, or frames. While important, these tools cluster documents/texts into "topics" based on keywords which often leads to incoherent or meaningless topics. The goal of topic modeling is to demonstrate how a document/text *engages* with a given topic, narrative, or "concept," yet relies on the co-occurrence of keywords—based on a logical test of their presence or absence. Because these topics are inductively-generated, they often do not measure a document's engagement with a *concept*—which is, at its core, composed of various associated terms that may not be present in a document's text. As such, Stoltz and Taylor (2019) developed CMD, which is a similarity score that measures a document's engagement with a focal topic or concept.

14. For example, Census data from 1990 are used as predictors of frame engagement for articles in 1991.

15. I rely on CBS polls for data availability reasons. Available data, however, begin in 1994 and conclude in 2016. As such, values remained constant from 1990 to 1994. While alternative data sources exist, none are measured (collected and understandably weighted) as consistently over time as the CBS polls used here.

16. I also substituted data from Congressional Quarterly's *America Votes* to calculate the percentage of voters who voted for the Democratic candidate in the 2012 and 2016 presidential elections. Because my data are state-years between 2012 and 2016, values for years between presidential elections were linearly interpolated. Results are similar to those for the citizen ideology measure.

17. Nearly all newspapers reporting endorsed liberal or Democratic candidates.

18. The full table (with all predictors/controls can be found in the Appendix).

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