

A Threatening Tone: Homicide, Racial Threat Narratives, and the Historical Growth of Incarceration in the United States, 1926–2016

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Abstract

This study evaluates how homicide, racial threat, and media discourse interacted to shape the timing and persistence of prison growth in the United States. Drawing on Blumer's classic work, I argue that media discourse circulates threat narratives that portray racial minorities as either economically, politically, or criminally threatening. Criminal threat narratives increase in response to highly salient crimes, like homicide, and exert institutionally specific pressures that increase incarceration. To evaluate these claims, I use machine learning to classify 1,026,862 news articles in accordance with economic, political, and criminal threat themes in a time series analysis of the national incarceration rate between 1926 and 2016. Results reveal that the period of prison growth is characterized by an influx of criminal threat narratives that coincides with increases in the homicide rate. Criminal threat narratives and the homicide rate both have sizable long-term effects on the incarceration rate, whereas economic and political threat narratives have little explanatory power. Further analyses show that criminal threat narratives account for roughly half of the effect of the homicide rate on incarceration, and that the homicide rate has an indirect effect on racial disparity in prison admissions by acting through criminal threat narratives. These findings support core theoretical claims and expand our understanding of the complex interaction between racial threat and homicide in the historical rise of incarceration.

Since Blalock's (1967) first writing on intergroup competition, threat theory has provided an influential account of spatial variation in criminal punishments. Threat theory argues that the criminal justice system operates to suppress the competitive power of large minority groups. A large literature evaluates the threat hypothesis (e.g., [Olzak 1993](#); [Quillian and Pager 2001](#); [Behrens et al. 2003](#); [Stults and Baumer 2007](#)), with mixed empirical results varying by social

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control outcome, measurement strategy, and demographic subgroup (Feldmeyer and Cochran 2019; King and Light 2019). A growing number of scholars have responded to these inconsistencies by evaluating threat mechanisms (King and Wheelock 2007; Stults and Baumer 2007; Duxbury 2021a). Others use historical case studies that provide qualitatively rich contexts to examine threat processes (Olzak 1993; Behrens et al. 2003; Muller 2012).

A commonality in prior research is a focus on spatial variation in minority group size, with limited attention to the temporal contexts that shape which groups are perceived as threatening and why. Yet, race researchers document substantial historical variation in racial categorization and institutional strategies used to repress racial groups, even in periods when there is little minority group growth (Omi and Winant 1994; Wimmer 2013; Baker 2022). Collective understandings of race shape group boundaries (Wimmer 2013), inform the types of legal policy that racial majorities support (Peffley and Hurwitz 2007), and rationalize systemic inequalities (Bonilla-Silva 2006). Inattention to the temporal dynamics of racial threat and sources of change in threat perceptions thus raises important questions about the ability of threat theory to account for historical fluidity in threat perceptions and the effects of those changing perceptions on social control.

This study draws on classical work by Blumer (1958) to develop a temporal perspective on homicide and racial threat that departs from prior studies' emphasis on minority group size and intergroup competition. I argue that threat narratives—media discourse that defines which groups are threatening and the type of threat posed—shape threat perceptions, exert pressure on institutional and political actors, and adapt to publicly resonant focusing events, such as sustained increases in serious offending. As a result, the amount of media attention directed to criminal threat narratives increases when the homicide rate increases. And, when media discourse portrays racial minorities as posing a criminal threat, social control increases as well.

I evaluate this argument using machine learning and restricted access text data on 1,026,862 news articles in a time series analysis of the national incarceration rate from 1926 to 2016. Incarceration plays a crucial role in contemporary racial inequality. Incarceration is associated with racial disparity in employment, education, and political participation (Wakefield and Uggen 2010). Despite finding that incarceration represses Black economic and political influence, researchers report mixed evidence of threat effects on prison expansion. One possible explanation for these inconsistencies may be that prior studies have focused too narrowly on spatial variation in minority group size. Although researchers have studied how threat shapes incarceration in historical periods (Behrens et al. 2003; Muller 2012), few studies examine trends in incarceration *prior to and during* the period of prison growth. This is an important omission, as theories of mass incarceration argue that the decades preceding prison expansion provided a critical transition period where shifts in political and cultural climates provoked later increases in the incarceration rate (Garland 2001; Gottschalk 2006; Alexander 2010).

By developing and evaluating a temporal perspective on homicide and racial threat, the study provides several contributions. First, it advances a dynamic model that explains how increases in homicide can shape threat narratives and social control even in the absence of minority group growth. The analysis shows that criminal threat narratives steadily rose during the 1960s in tandem with increases in the homicide rate, that the influx of criminal threat narratives had a long-term effect on the incarceration rate, and that the homicide rate has an indirect effect on the incarceration rate and racial disparity in prison admissions by acting through criminal threat narratives. These results support theoretical expectations and shed new light on the complex interplay between racial threat and serious offending during the period of mass incarceration.

Second, findings reveal that the homicide rate has a long-term effect on incarceration, even after controlling for criminal threat narratives. This result supports arguments that serious offending played an important role in mass incarceration by increasing the number of persons serving long sentences with limited opportunity for early release (Pfaff 2017). Finally, although past research relies on key word classifiers to measure trends in media coverage (Enns 2016; Miller 2016; Shi et al. 2020), such classifiers are ill-suited to code complex threat themes. I address

this challenge by using supervised machine learning to code the large-scale text data. Thus, the study provides a methodological contribution by illustrating how machine learning can be used to quantify complex themes in unstructured text.

Racial Threat, Homicide, and Periodicity in Incarceration

Prior research documents temporal heterogeneity in threat perceptions across historical periods. Studies set in the early 1900s tend to emphasize *economic* and *political* threats (Behrens et al. 2003; Muller 2012; Olzak 1993; Olzak and Shanahan 2014). Studies in contemporary periods, however, emphasize *criminal* threats, reporting associations between minority group size, perceived victimization risk, punitiveness, and fear of crime (Quillian and Pager 2001; Chiricos et al. 2004; King and Wheelock 2007; Stults and Baumer 2007). Although researchers report temporal heterogeneity in threat perceptions, few studies have explained why this heterogeneity exists. Prior research tends to focus on specific historical periods, such as the Jim Crow era (Behrens et al. 2003), World War I (Olzak 1993), and the era of mass incarceration (Campbell et al. 2015; Duxbury 2021a), typically explaining threat perceptions within the context of the place or time. Because these studies only observe specific periods, they are unable to account for *change* in threat perceptions between historical periods.

Research on incarceration has been particularly equivocal on the role of racial threat. Although some studies report positive effects of minority group size on incarceration (Greenberg and West 2001; Jacobs and Carmichael 2001), others report null associations (Spelman 2009; Enns 2016). This inconsistent evidence has motivated debates on the respective influence of racial threat and serious offending in prison expansion. On one hand, some scholars argue that large minority groups and political threats to White dominance increased punitive policy and politics (Weaver 2007; Alexander 2010; Beckett and Francis 2020; Duxbury 2021a). This research questions the relevance of serious offending, suggesting that the influence of violent crime was limited to a brief window in the 1960s and early 1970s (Weaver 2007) and that sanctions for drug crime played a larger role than homicide (Alexander 2010: 101–102). Indicative of this perspective, Beckett and Francis (2020: 434) write that “it is clear that changes in policy and practice (rather than rising crime rates) are the proximate drivers of the prison boom.”

On the other hand, some scholars argue that prison expansion can be traced to long-term effects of rising crime (Spelman 2009; Enns 2016; Pickett 2019), especially homicide (Pfaff 2017). To these researchers, rising crime rates increased the number of individuals eligible for prison and created a more punitive public. Spelman (2009: 53), for example, argues that “little evidence is available to suggest that social threats matter at all.” Instead, he advances a “remarkably simple explanation for what caused the prison boom of the last 30 years: rising crime rates, sentencing policies that put more offenders behind bars and kept them there, and the state revenue to pay for it all” (p. 34).

Efforts to address debates on the effects of racial threat and homicide emphasize the *timing* of change in the incarceration rate. Blumstein and Cohen (1973), for example, report stability in the incarceration rate prior to 1970 despite declines in the homicide rate. Critics of the justice system similarly argue that tough-on-crime policies emerged in response to political turmoil in historical periods that predate prison expansion, such as during the Civil Rights era (Weaver 2007) and after World War II (Murakawa 2014). Other scholars, however, point to long-term relationships that have affected the annual flow of prison admissions and releases since the 1970s (Spelman 2009; Enns 2016). Pfaff (2017: 187–190), for example, argues that homicides have a larger and “stickier” effect on the incarceration rate compared with drug sanctioning because homicide offenders consistently receive long sentences and rarely qualify for early release. Campbell et al. (2015) examine period-specific effects on incarceration, finding that the effect of minority group size increased between 1970 and 2010, whereas the effect of violent crime declined.

Despite mixed views on whether and how racial threat and homicide affect prison expansion, few studies have examined the broader history of imprisonment encompassing periods *prior* to

and during prison growth. We know little about intertwined changes in homicide and racial threat and their effect on the timing and persistence of prison growth. This study addresses this research gap in two ways. First, I begin my observation period in 1926, allowing me to trace the historical development of homicide and racial threat narratives between distinct periods and evaluate their respective effects on incarceration. Second, I advance an explanation that integrates racial threat and serious offending arguments with a focus on temporal change. I argue that increases in homicide shape incarceration both directly and indirectly. Directly, it increases the number of persons serving long, inflexible sentences. Indirectly, increases in homicide enable increases in criminal threat narratives that pressure political and criminal justice actors to react punitively to crime. Thus, attention to trends in homicide and threat narratives, rather than minority group size, may explain why prior studies have found mixed evidence of a threat-incarceration relationship.

The Dynamics of Homicide, Racial Threat Narratives, and Incarceration

Homicide and the construction of criminal threat narratives

Although often cited alongside [Blalock \(1967\)](#), [Blumer \(1958\)](#) advocated for a drastically different vision of racial threat. To [Blumer \(1958\)](#), threat perceptions form when racial majorities compare themselves with “an abstract image of the subordinate racial group defined as if it were an entity or whole” ([Blumer 1958](#): 4). Threat perceptions are constructed “chiefly through the public media in which individuals who are accepted as the spokesmen of a racial group characterize publicly another racial group” ([Blumer 1958](#): 3). When threat narratives in media discourse define the “abstract image” of a racial group as posing a challenge to dominant group resources, influence, or well being, dominant group members perceive the racial group as representing an economic, political, or criminal threat.

Central to [Blumer's \(1958\)](#) argument is that temporal contexts shape threat perceptions. According to [Blumer \(1958](#): 6), the “construction of the abstract image” of subordinate racial groups “takes place in the realm of the far, and not of the near.” Everyday interactions, social proximity, and exposure to racial minorities challenge threat perceptions by undermining beliefs in group differences (see also [Pettigrew 1998](#)). Because media discourse supersedes spatial boundaries, trends in threat narratives shape threat perceptions by “providing a central stream of [racial definitions]” ([Blumer 1958](#): 3), even when there is little change in minority group size or intergroup competition. Prior race research, for example, shows that changes in media framing affect racial attitudes and beliefs about racial groups ([Kellstedt 2003](#); [Feagin 2009](#)).

To [Blumer \(1958](#): 6), “the [racial] definitions that are forged in the public arena center about matters that are felt to be of major importance” and thus tend to adapt to “the events of the times.” Journalists, editors, and news agencies prioritize content that directs attention to salient focusing events and frames for those events that resonate with target audiences ([Cook 2005](#); [Downs 1972](#); [Guardino 2019](#)). Although media actors have the capacity to curate content by elevating some topics and frames over others, they struggle to sustain attention if the topics and frames in media coverage are not publicly resonant. As a result, major focusing events—like increases in homicide—tend to dominate “issue attention cycles” in news media ([Downs 1972](#)) and media actors tend to elevate frames for those focusing events that draw and sustain public attention ([Guardino 2019](#)).

This research suggests that increases in the homicide rate provided a resonant focusing event that enabled increases in criminal threat narratives. The growth of incarceration occurred against the backdrop of the American crime wave when the homicide rate more than doubled from 4.3 per 100,000 capita in 1963 to 9.9 in 1992. Homicides have a disproportionate effect on media attention compared with other types of crime ([Gruenwald et al. 2013](#); [Miller 2016](#)). Prior studies, for example, report a quantitative increase in media attention to crime between 1960 and 2010 that is closely correlated with the homicide rate ([Enns 2016](#); [Miller 2016](#)). Researchers also document

racialized crime news coverage in the late 20th century, where media attention is directed to homicide offenses with Black perpetrators (Russell 1998; Beckett and Sasson 2004). These studies suggest that the sharp increase in homicides beginning in the 1960s contributed to sustained increases in criminal threat narratives throughout the late 20th century.

Criminal threat narratives and the rise of incarceration

Although the classical variant of threat theory argues that racial majorities use the criminal justice system to suppress competitive threats, the focus on media discourse implies that threat narratives should have institutionally specific effects. Lawmakers are constrained in the types of policies that they can propose and realistically pursue (Jones and Baumgartner 2005). Media discourse serves an agenda-setting function in policy processes by increasing the salience of specific issues and by framing the range of possible policy responses to those issues (Baumgartner and Jones 1993; Cook 2005). Further, media discourse provides an important information source to criminal justice actors, such as judges and police officers, on the urgency of crime problems and the groups responsible. In this respect, criminal threat narratives are likely to be the most consequential type of threat narrative for incarceration, whereas economic and political threat narratives should have relatively little explanatory power.

Prior research outlines two pathways through which criminal threat narratives can affect incarceration. First, criminal threat narratives shape racial majorities' support for crime policy. Public opinion has a large effect on incarceration (Enns 2016; Pickett 2019), and some studies find that the opinions of racial majorities are favored over minority groups in the realm of crime policy (Duxbury 2021a). Media coverage increases public punitiveness and crime salience (Enns 2016; Miller 2016; Shi et al. 2020), and experiments show that respondents exhibit the greatest increase in punitiveness and concern with crime when they are conditioned to believe that Black people are the source of crime problems (Creighton and Wozniak 2019; Peffley and Hurwitz 2007; Pickett et al. 2012). Further, political and criminal justice actors respond to public punitiveness and fear of crime with tougher sanctioning (Huber and Gordon 2004), increased police presence (Stults and Baumer 2007), and tougher policy (Enns 2016). By shaping public opinion, criminal threat narratives drive political actors to pursue tough crime policies and motivate criminal justice actors to behave more punitively.

Second, criminal threat narratives increase lawmakers' willingness to pursue punitive policy, even when they do not alter public opinion. Lawmakers operate in anticipation of public responses to policy, crafting, and passing policies that they think will change the public narrative in their favor (Stimson 1999; Pickett 2019). Media coverage provides information to legal actors on what social issues are stirring public concern (Cook 2005). In turn, lawmakers propose crime policy changes to align with the "images" of public opinion and crime that circulate media discourse (Beckett 1997; Beckett and Sasson 2004; Cook 2005). Criminal threat narratives thus exert pressure on political and criminal justice actors by providing readily available—though often biased—information on crime, the groups responsible, and public concern.

To the extent that media discourse shapes public opinion and is interpreted as an indicator of public concern, criminal threat narratives should increase punitive behavior among political and criminal justice actors. Thus, sustained increases in criminal threat narratives should be associated with a long-term increase in the incarceration rate. Prior research supports this expectation. Enns (2016) finds that national increases in media coverage of crime are associated with national increases in support for tough crime policy between 1953 and 2010. Shi et al. (2020) document the same relationship for trends in crime salience between 1960 and 2014. Baumgartner et al. (2008) trace the decline of federal executions in the 1990s to media coverage that increased attention to wrongful victims of capital punishment. King et al. (2012) find that media coverage of immigration and crime is linked to national increases in criminal deportation rates between 1908 and 2005.

The above reasoning provides the following hypotheses. First, there should be an influx of criminal threat narratives in the decades prior to prison expansion that closely correlates with

increases in the homicide rate. Second, both the homicide rate and criminal threat narratives should have long-term effects on the incarceration rate, whereas economic and political threat narratives should not. Third, a large portion of the effect of the homicide rate should be explained by criminal threat narratives. I now introduce the historical case to evaluate the consistency of my argument with prior historical research.

Mass Incarceration in Historical Perspective: The Early Years

Although racial conflict during the Civil Rights era provided an inflection point in the history of mass incarceration (Beckett 1997; Western 2006), racial understandings of crime shaped crime control tactics as early as the 1920s. Justified by racially biased law enforcement and incarceration data, police, municipal officials, and judges used racial understandings of crime to justify police spending and tougher sanctions in criminal courts (Muhammad 2010). By the end of the 1940s, Black upward mobility resulting from the postwar boom drew concerted attention to crime in Black neighborhoods. Although many crime control efforts were ostensibly intended to reduce disparities in victimization, they were largely guided by culturally entrenched notions of Black criminality (Murakawa 2014). One infamous example comes from Patrick D. Moynihan, assistant Secretary of Labor under President Johnson and later US senator, who concluded that single mother households in Black communities “had the predictable outcome [of] a disastrous delinquency and crime rate” (Moynihan 1965: 46).

Racial understandings of crime gained a wider audience in the 1960s, as the growing availability of mass media coincided with increases in homicide. The intertwined development of mass media and serious violence affected how the public understood the growing crime problem. According to Garland (2001: 157–158), mass media “increase[ed] the salience of crime in everyday life” and attuned the public “to the collective representations [of crime] that the media establish[ed]” over time. Although the media has acted as a “political institution” since the 19th century, the growth of mass media during the mid-20th century increased the effect of media coverage on political and institutional behavior (Cook 2005). According to Beckett and Sasson (2004: 85–97), for example, much of the political urgency behind federal drug policy resulted from news stories that saturated national media coverage with imageries of violent Black male distributors and habitual users.

By the end of the 1960s, media discourse had begun to increasingly emphasize Black criminal threat. Capitalizing on violent crime and protests in major cities, conservative political actors deployed “tough on crime” rhetoric to appeal to Whites’ racial anxieties (Weaver 2007). Concern with violence and public safety, especially among Whites, inspired a shift from root-causes policies to punitive interventions. One salient example comes from the Watts Uprising. On August 11, 1965, the beatings of a Black woman and her two sons by Los Angeles police initiated a wave of local riots. The racial unrest placed pressure on President Johnson as “harrowing media coverage ... evoked long-held racist fears about black disobedience and innate violence” (Hinton 2016: 71). These themes recurred for weeks, appearing in national journals like the *New York Times*, *Wall Street Journal*, and *Newsweek*, and “galvanized the perception that the uprising was an insurrection against authority... especially among the white public” (Hinton 2016: 75).

Although Johnson had long opposed tough-on-crime tactics, publicly remarking that “democracy never solves its problems at the end of a billy club” (Johnson 1964), media pressure reversed his policy stance. Fearing that unflattering coverage would undermine broader support for his Great Society initiative, Johnson signed the *Law Enforcement Assistance Act* on September 22, 1965, seeking to scaffold his policy agenda with a hardline on crime (Hinton 2016: 75). By the end of his term, Johnson had passed several landmark pieces of crime legislation, including the *Omnibus Crime Bill of 1968*, which poured federal spending into local and state criminal justice agencies and provided the foundations for later omnibus crime spending bills, such as the *Violent Crime and Law Enforcement Act of 1994* and the *Comprehensive Crime Control Act of 1984* (Hinton 2016; Murakawa 2014).

Table 1. Number of Articles by Grouping

Article grouping	Number of articles	% of articles
Crime-related articles	443,514	43.19
Employment-related articles	178,040	17.34
Voting-related articles	197,720	19.25
Race-related articles	207,588	20.22

Note: The numbers presented in each cell are after removing duplicate entries that appeared in multiple searches.

In sum, historical research supports the reasoning that criminal threat narratives respond to increases in homicide and shape incarceration by exerting pressure on political and criminal justice actors. Media emphasis on Black criminal threat marked a turning point in the lineage of crime control, motivating key political figures to endorse punitive policy. Further, criminal threat narratives increased as rising violence coincided with social movement activity. Collectively, this research aligns with the argument that homicides and criminal threat narratives developed in tandem and had long-term effects on incarceration. I now introduce the novel text data and machine learning strategy used to evaluate my argument.

Measuring Threat Narratives

Text data

I leverage restricted access text data from the NewsBank US Historical NewsPaper archive to create time series measures of economic, political, and criminal threat narratives. The Historical NewsPaper archive contains a wide array of news articles from local, regional, and national outlets dating back to the 17th century. The unique coverage of the archive provides a rich data source that can be used to trace trends in threat narratives over a long timeframe. By including articles from multiple news outlets and levels of coverage, measures of threat account for variation across local, regional, and national levels of circulation and the ideological leanings of news organizations (Earl et al. 2004; Enns 2016: 83–84; Kellstedt 2003: 27).

The measurement goal is to classify media frames in accordance with threat narratives. I focus my analysis on news media coverage of race, crime, voting, and employment. Voting and employment have been at the center of interracial conflict for more than a century. Job competition is an important source of threat (Olzak 1993; Muller 2012), and voter suppression is a key method by which Whites have historically repressed Black political influence (Behrens et al. 2003; Blalock 1967: 161–164; Keele et al. 2021). Hence, voting and employment are recurrent sources of political and economic threat in both historical and contemporary settings and have each been linked to the racial politics of incarceration.

Following prior studies (Enns 2016; Kellstedt 2003; Miller 2016; Savelsberg and Brehm 2016), I sampled relevant documents using key word criteria¹. Employment-related articles were included if they mentioned either “employment” or “unemployment.” Voting-related articles were included if they mentioned variations of the word “vote” (e.g., “voted”, “voting”, “voter”). These articles included not only reports on voter turnout and registration, but also on votes cast within legislative bodies, voting stations, early voting, and voting rights. Crime-related documents were included if an article mentioned “crime,” “rape,” or “murder” (Enns 2016; Miller 2016)². Documents that pertained broadly to race were also incorporated to account for the possibility that threat narratives circulate within broader discussions of race (Kellstedt 2003)³. In total, I identified 1,026,862 articles published in 4,177 outlets between 1926 and 2016. Table 1 describes the number of articles collected for each set of search terms.

Supervised machine learning

Prior scholarship typically relies on hand-coding to determine whether a news article exhibits a particular media frame (Baumgartner et al. 2008; Kellstedt 2003; Savelsberg and Brehm 2016). This approach is implausible for large-scale text data, where hand-coding is too cumbersome to apply to a sample of one million documents. Other studies attempt to overcome this issue by using key word appearances (Enns 2016; Miller 2016). This approach, however, is ill-suited to codify complex threat themes, as threat may be communicated with colorblind language (Bonilla-Silva 2006), references to topical issues (Blumer 1958), and using complex phrases rather than isolated statements or key words (Beckett 1997).

I use a supervised machine learning approach to overcome the difficulties involved in coding large-scale text data for complex media frames. Because supervised learning algorithms are trained on a set of human ratings, they are adept at processing text data for complex themes (Liu 2012). Nelson et al. (2021) report that time trends in news articles classified with supervised learning correlate with human classifications at a range of 0.82–0.93 in multi-decade time series data. The ability to reproduce time trends over long time periods is critical, given my central interest in the growth of incarceration between 1926 and 2016. I begin by describing the hand-coding practices used to measure threat themes before detailing the learning algorithm and finally evaluating algorithmic performance.

Hand coding

Constructing the training data entails developing a coding device and assigning codes to a sizable subsample of text documents. Articles rarely overtly exclaimed that “black people are taking white jobs”, “black people are criminals”, or that “black people vote too much.” Rather, allusions to threat typically rely on subtle cues in language, such as references to anti-White discrimination, claims that racially egalitarian policies challenge core American values, or statements on the dangerousness of Black neighborhoods. Threat narratives were thus understood to exist when (i) an article portrayed Black people, populations, groups, or key figures as holding substantial economic or political influence or being associated with crime and (ii) presented this content in a negative, fearful, or hostile light (e.g., Blumer 1958: 4).

Economic threat codes were assigned to articles that presented negative frames on Black economic mobility and job competition. Common examples include articles that describe governmental hiring and promotion policies as discriminating against Whites, articles that portray Black populations as both receiving and undeserving of governmental assistance, and negative statements on minority hiring and diversity initiatives (Kinder and Saunders 1996). *Political* threat was coded as content presenting negative frames on Black social movements, Black political participation, and the legislative activities of Black politicians. Common examples include negative statements on racial differences in voter turnout, claims that increases in Black political participation or the activities of Black political figures would threaten American democracy or are “unconstitutional”, and statements that portray racially egalitarian legislation as anti-White, undemocratic, or un-American (Kellstedt 2003). *Criminal* threat codes were assigned to articles that portrayed Black people as violent, mired in crime, or as a public menace. Common examples include negative statements that described Black family structures as the cause of crime, crime as a problem specific to Black communities, and those that reasoned that violence associated with Black movements, people, or neighborhoods posed an existential threat to whites, “American values”, or society in general (Beckett 1997; Weaver 2007; Hinton 2016). Example excerpts of text used to assign threat codes are provided in Table 2.

Each article could exhibit multiple threat themes. A single article on Affirmative Action, for example, could communicate both economic and political threat by representing an “anti-white” legislative victory that privileges Black applicants in hiring decisions. Codes were assigned to text that used both explicit and implicit racial cues (e.g., “welfare queens”). When applying codes, care was taken to focus explicitly on negative frames. These coding decisions were most critical for

Table 2. Example Threat Codes and Four-rater Reliability

Themes	% Agreement	Krippendorff α
Economic threat "Blacks want special treatment through affirmative action [hiring]"; "Welfare to work will cause 9 qualified applicants to be competing for the same jobs."; "Now Negroes want to become doctors, lawyers, and educators. They want to work in our [white] schools. They want to teach our [white] kids."	98.5	0.67
Political threat "Affirmative Action threatens the foundations of American democracy"; "I only have respect for Roy Wilkins. He isn't afraid to be called an Uncle Tom. Other Negro leaders are phony!"; "Look what they [black people] do when one of their leaders gets shot. [In reference to riots after the assassination of Martin Luther King Jr.]" ^a	96.5	0.75
Criminal threat "The face of an offender is dark and shrouded"; "If you want to help blacks, you need to address black on black crime"; "Eight crazed Negroes killed four police officers."	95.5	0.75

Note: Although these excerpts provide explicit statements used to invoke threat, codes were applied using the entire document to account for context and expressive cues that are not communicable in isolated sentences.

^aThis particular article was coded as exhibiting both political and criminal threat because it referenced Black political activity as violent and destructive.

criminal threat. Articles that reported on actual crimes were only coded as exhibiting criminal threat when they invoked a negative frame, such as by portraying the offender as a "super-predator" or by connecting an isolated case of offending to a broader moral or cultural issue. Newline reports on wanted suspects and those that described a crime with a Black offender without invoking an overt negative frame were not included.

After developing the coding device, I recruited and trained a team of three independent raters. We collectively assigned codes to a random subsample of 20,000 documents, stratified to be proportional to the number of articles collected each year. Four-rater reliability exceeds 95% in all cases, and Krippendorff's α ranges from 0.67 to 0.75 (Table 2). In sum, 10 000 documents were set aside to use as training data, whereas another 10,000 were held out for validation.

Algorithmic processing

After holding out 20,000 hand-coded documents, a sample of 1,006,826 documents remained for algorithmic processing. Algorithmic processing entails pre-processing the news data, training a learning algorithm on the training data, and finally using the trained algorithm to assign threat themes to the remaining articles. The text in the training data is transformed into a matrix of word frequencies, where each column reflects a unique word, each row reflects a unique article, and each cell records how frequently each word appears in each article. When using a regularization approach (Zou and Hastie 2005), as I do here, the learning algorithm is trained by regressing each threat theme on the word frequency matrix with a generalized linear model. Upon convergence, the algorithm provides a vector of regression coefficients that can be used to assign threat codes in the remaining 1,006,826 articles.

I assigned threat codes using a stochastic gradient descent algorithm with a logistic regression classifier. Stochastic gradient descent is desirable for the current purposes because it scales well to large data with complex features (Bottou 2010). The algorithm proceeds by randomly selecting a news article, evaluating the gradient at that observation, and updating the parameter vector. Upon convergence, the algorithm provides the method of moments estimator for the regression⁴. After training the algorithm, I used the estimated coefficients to assign threat codes in the remaining

Table 3. Supervised Machine Learning Validation Results

Themes	Accuracy	Precision	Recall	F1 score	Correlation in time trends
Economic threat	0.96	0.79	0.80	0.79	0.80
Political threat	0.95	0.88	0.89	0.87	0.84
Criminal threat	0.94	0.83	0.86	0.84	0.82

sample of 1,006,826 articles. Separate classifiers were trained for each threat narrative so that a single document could be assigned multiple codes.

Validation

The final and most critical step is evaluating algorithmic performance on an independent subsample of 10,000 hand-coded documents. This step is necessary to ensure that the trained algorithm is assigning codes in a manner consistent with human raters. I evaluate algorithmic performance using four criteria: *accuracy* (the proportion of correctly coded documents), *precision* (true positives divided by false positives plus true positives), *recall* (true positives divided by true positives plus false negatives), and the *F1 score* (the harmonic mean of precision and recall). By convention, F1 scores greater than 0.7 are considered evidence of good performance (Caruana and Niculescu-Mizil 2006).

Table 3 reports validation results. Across each criterion, the fit of the classifier to the validation set is strong. The high accuracy for each threat measure (> 0.94) indicates that the trained algorithm does a good job of sifting through irrelevant documents, where most news articles do not exhibit any threat theme. Precision is high, where the lowest value is 0.79. This indicates that when codes are assigned, they tend to be assigned accurately (there are few false positives). Recall is also high, where the lowest value is 0.8, indicating that the algorithm has good coverage of the codes assigned by human raters (there are few false negatives). The F1 score summarizes precision and recall and is widely regarded as the “gold standard” for evaluating machine learning performance (Caruna and Niculescu-Mizil 2006). The lowest F1 score is 0.79, again reflecting strong algorithmic performance. Finally, correlations in time trends are large at 0.80 for economic threat, 0.84 for political threat, and 0.82 for criminal threat. Collectively, these validation results indicate strong algorithmic performance.

Scores were aggregated yearly to construct time series measures of economic, political, and criminal threat narratives. Threat narrative prevalence was measured as the proportion of articles exhibiting a threat theme. Standardizing by the annual number of articles accounts for the rise of mass media, where the number of threat-related articles could increase because news media became more common in the 1950s and 1960s. Following Nelson et al. (2021), I compute two-year moving averages to account for the “staying power” of public discourse. I multiply the measures by 100 so that they can be interpreted as the percentage of sampled documents that frame Black s as posing economic, political, or criminal threat.

Data

I conduct a time series analysis examining the growth of the national incarceration rate between 1926 and 2016. Time series data hold constant cross-sectional variation to only consider time trends, meaning that the analysis bears explicitly on the temporal contexts of central interest. Further, roughly 79% of the over-time variation in state incarceration rates during the period of prison expansion was part of a national trend that affected all states equally (Duxbury 2021b: 363–366), and is thus captured by national time series analysis. The national incarceration rate also incorporates the sizable minority of federal prisoners that represent roughly 13% of the prison population, which are lost in subnational analyses.

The dependent variable is the national incarceration rate per 100,000 capita measured annually. The incarceration rate is widely regarded as the best single indicator of the omnibus changes in crime control observed during the period of mass incarceration (Garland 2001; Enns 2016). Incarceration data prior to 1977 were obtained from the *Historical Statistics on Prisoners in State and National Prisons, 1926–1986* (Langan et al. 1988); data for 1978–2016 were obtained from the National Prisoner Statistics. Because threat narratives are hypothesized to have the strongest effects on racial minorities, I also report analyses that examine prison admission rates by race⁵.

Homicides are measured as the homicide rate per 100,000 capita. Homicides are the most consistently and reliably reported measure of crime across time, making the measure appealing for historical analysis (King et al. 2012; Muller 2012; Ramirez 2013). Further, national trends in homicide are closely correlated with national trends in index crime ($r > 0.9$), meaning that the homicide rate adequately captures national shifts in offending (O'Brien 1996)⁶. Homicides are also the most likely type of crime to receive media attention and to shape media discourse (Miller 2016). It is possible that any association with criminal threat narratives results from media attention to crime in general, rather than the racial content of that media attention. I control for overall media coverage of crime by including a 2-year moving average of the percentage crime-related articles in the NewsBank data (e.g., Enns 2016; Miller 2016).

Drug enforcement is often implicated in theoretical accounts of prison expansion (Alexander 2010). I include a measure of illegal substance enforcement using the dollar amount spent on combatting illegal substances. I construct this measure as federal expenditures on illegal substance control per million USD in gross domestic product using annual data from the *Federal Budget of the United States* (Miron 1999). In addition to crime and substance regulation, I control for minority group size using the percent Black population. This accounts for the possibility that increases in Black population size may be associated with incarceration (Blalock 1967). A long research tradition ties historical punishments to economic inequality and labor markets (Rusche and Kirchheimer 1939; Western 2006). I account for both possibilities by using the Gini index and the unemployment rate⁷.

Conservative political influence is a particularly important control. I measure Republican party influence as the proportion of Republican members of the House of Representatives plus the proportion Republican members of the Senate. A value of 1 is added if the president is Republican. Finally, several related political variables may shape incarceration and confound the effect of criminal threat narratives. Public support for tough crime policy, changes in political discourse, and elite attention to crime can each be plausibly expected to influence criminal threat narratives and have their own independent effects on incarceration. The Supplementary Materials explore pathways that implicate political discourse, elite attention, and public opinion in a sensitivity analysis that allows for reverse causality (Supplementary Figure S2 and Supplementary Table S3). Table 4 reports descriptive statistics.

Analytic strategy

Time series data present unique statistical issues. When spurious trending is present, regression coefficients and standard errors are biased. Dickey–Fuller tests failed to reject the null hypothesis of stochastic trending in the incarceration rate but supported stationarity after computing the change in the incarceration rate ($P < 0.01$). In cases where the dependent variable is only stationary after first differencing, the most common approach is to use a random walk model, which involves first differencing all variables and then fitting a regression to the differenced data. Although unbiased, the random walk model can only represent short-term relationships (De Boef and Keele 2008). Yet, as Blumer (1958) describes, senses of racial identity are difficult to forge and can persist for many years. Further, incarceration rarely varies as an immediate response to social conditions, but instead changes over time as political and institutional environments gradually shift (Spelman 2009: 33).

The random walk model can be expanded to include long-term relationships by using an error correction model (ECM). Given a nonstationary dependent variable, ECM takes the following

Table 4. Descriptive Statistics for National Incarceration Data, 1926–2016 (N = 91)

Variable	Mean (SD)	Range
Incarceration rate per 100,000 capita	213.63 (154.61)	49.23 to 504.53
Criminal threat	2.79 (1.88)	0.02 to 7.72
Economic threat	3.05 (4.02)	0 to 19.36
Political threat	0.304 (0.338)	0 to 1.62
Homicide rate per 100,000 capita	7.07 (1.98)	4.40 to 10.70
Percent crime-related articles	33.48 (11.99)	15.00 to 45.71
Drug enforcement expenditures per million GDP	48.25 (60.23)	0.19 to 177.52
Percent Black	11.38 (1.12)	6.08 to 13.10
Republican strength	1.35 (0.58)	0.38 to 2.19
Gini coefficient	0.51 (0.07)	0.39 to 0.64
Unemployment rate	7.01 (4.70)	1.20 to 24.90

functional form:

$$\Delta y = \alpha + \delta y_{t-1} + \beta^T \Delta X + \gamma^T X_{t-1} + e.$$

Like the random walk model, the dependent variable is the change in incarceration rate and short-term effects are represented by β . However, ECM also includes *long-run* relationships represented by γ . Positive results for β tell us that an increase in a variable is associated with immediate increases in incarceration, whereas positive results for γ indicate that a variable is associated with long-term changes in incarceration that unfold over multiple years.

For ECM to provide unbiased estimates, two additional requirements must be met. First, the detrended incarceration rate must be cointegrated with the independent variables (De Boef and Keele 2008). Engle–Granger tests support cointegration with a test statistic of -10.04 ($P < 0.001$). Second, at least one independent variable must be nonstationary prior to first differencing but trend stationary after first differencing. Dickey–Fuller tests in [Supplementary Table S1](#) of the Supplementary Materials support this requirement. Durbin–Watson tests did not detect serial correlation in any model. Because time series data are vulnerable to overfitting, I first present restricted regressions examining only the homicide rate and threat variables. I then sequentially introduce controls to illustrate the robustness of results before conducting mediation analyses to test indirect effects acting through criminal threat narratives⁸.

Results

The first empirical goal is to examine temporal variation in racial threat narratives. Although criminal threat narratives varied prior to the Civil Rights era, they began to steadily rise in 1963 ([Figure 1](#)). In 1988, criminal threat narratives accounted for 7.72% of sampled articles before

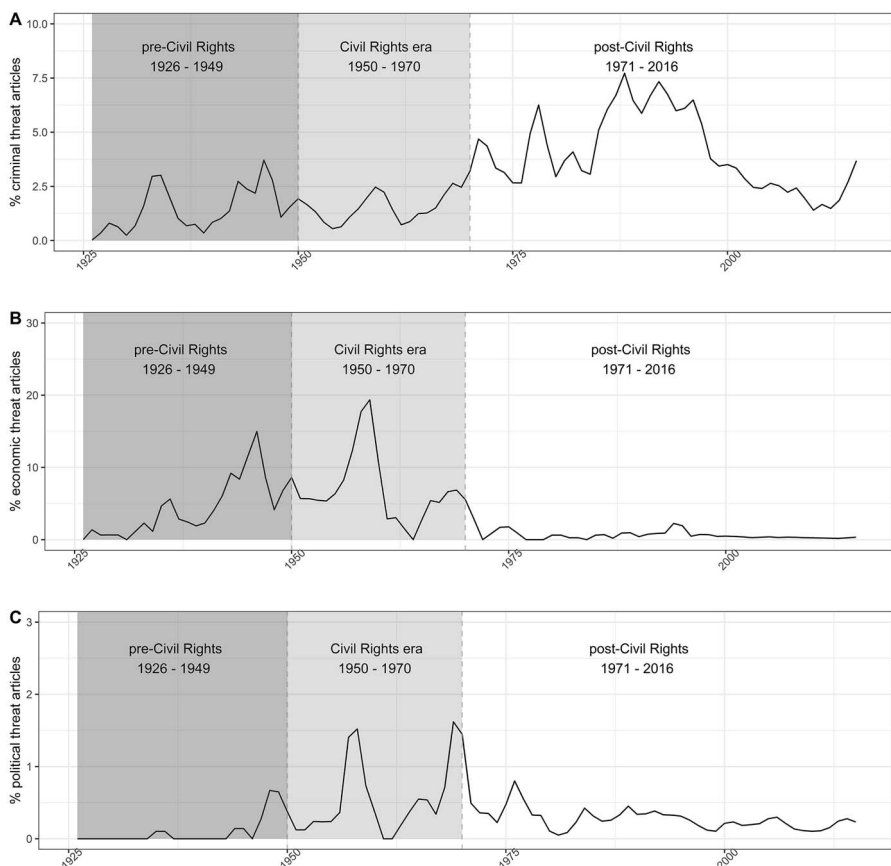


Figure 1. Time trends and period-specific variation in threat narratives, 1926–2016.

declining in prevalence during the 1990s. Consistent with expectations, these trends coincide with increases in the homicide rate between 1963 and 1992. [Figure 2](#) evaluates the bivariate association between each explanatory variable and the detrended incarceration rate; [Table 5](#) reports the correlation matrix. Consistent with expectations, there is a close association between criminal threat narratives and change in the incarceration rate ($r = 0.64$), but there is little evidence of a comparable association for either economic ($r = -0.28$) or political ($r = 0.03$) threat narratives. The correlation between the change in incarceration rate and homicide rate is sizable ($r = 0.54$). Also in line with expectations, criminal threat narratives are positively correlated with the homicide rate ($r = 0.56$).

Models 1–3 report restricted regressions evaluating the effects of criminal threat narratives and the homicide rate ([Table 6](#)). Consistent with descriptive results, the criminal threat long-run coefficient is positively related to change in the incarceration rate. In fact, when only criminal threat narratives are included, the R^2 is 0.41, meaning that criminal threat narratives explain 41% of the change in the national incarceration rate. Model 2 excludes criminal threat narratives and includes the homicide rate. The long-term homicide rate coefficient is positive and significant, accounting for 31% of the change in the incarceration rate. Model 3 includes both criminal threat narratives and the homicide rate. Consistent with expectations, the long-term homicide rate coefficient declines by 37%, suggesting that criminal threat narratives explain a sizable portion



Figure 2. Threat narratives and change in the national incarceration rate, 1926–2016.

of the effect of the homicide rate, though the homicide rate is robust in terms of direction and significance.

In Model 4, I include political and economic threat narratives. Consistent with expectations, the economic and political threat variables are nonsignificant. Including the political and economic threat variables also does not improve model fit ($F = 0.955$, $P = 0.44$). In line with hypothesized

institutional specificity, these results reveal that criminal threat narratives have a close association with change in the incarceration rate but uncover little evidence of an effect from economic or political threat narratives. Model 5 includes crime news coverage and drug enforcement variables. The coefficient for the percentage of crime-related articles is nonsignificant, indicating that the effect of criminal threat narratives cannot be attributed to generalized media attention to crime. Models 6 and 7 include economic, demographic, and political variables. The Gini coefficient is associated with long-term changes in the incarceration rate. Results for all threat narrative variables and the homicide rate are robust⁹.

Model 8 presents the most parsimonious model where first differenced terms are only included for variables that are nonstationary prior to first differencing but are stationary after first differencing (Supplementary Table S1 of the Supplementary Materials). The R^2 is 0.697, reflecting substantial explanatory power. A one percentage point increase in the number of criminal threat themed news articles is associated with a net increase of 1.994 additional incarcerated persons per 100,000 capita in the following year. Similarly, each additional homicide per 100,000 capita is associated with a 1.676 net increase in the incarceration rate in the following year. As the long-term coefficients summarize change in incarceration that unfolds over multiple years, they provide an incomplete picture of cumulative effect size. To further assess effect size, I consider what the national incarceration rate might look like had each variable not increased in the post-Civil Rights era. Predicting the change in the incarceration rate between 1970 and 2016 while holding the criminal threat variable at its 1970 value cuts the predicted 2016 incarceration rate by 60.4%, from 459.79 to 181.72 prisoners per 100,000 capita, or a reduction of about 899,886 prisoners. Repeating the procedure with the homicide rate reduces the predicted 2016 incarceration by 32.1% from 459.79 to 312.66.

Table 7 evaluates racial disparity by fitting the ECM to race-specific prison admission rates¹⁰. Consistent with expectations, the long-term criminal threat narrative variable is positively associated with the Black prison admission rate (Models 9 and 10). By contrast, neither short nor long-term changes in criminal threat narratives are associated with White prison admission rates before or after including controls (Models 11 and 12). Analyzing the relative disparity—the ratio of Black -to-White prison admission rates—uncovers positive short- and long-term effects from criminal threat narratives (Models 13 and 14). Consistent with theoretical reasoning, these results reveal that criminal threat narratives are associated with increases in both overall levels of incarceration as well as racial disparity in prison admissions.

The next empirical goal is to evaluate whether the effect of criminal threat narratives can be traced to trends in the homicide rate. I use the mediation methods of Imai et al. (2010) to evaluate hypotheses on indirect effects operating through criminal threat narratives¹¹. All mediation models include the full set of controls. Consistent with ECM, indirect effects from economic, political, and demographic threat variables are nonsignificant (Table 8). Instead, sizable indirect effects come from the percentage crime-related articles and the homicide rate, where criminal threat narratives explain 36.3 and 50.5% of the total effects of each variable, respectively. Consistent with expectations, these results reveal that roughly half of the effect of homicide rates on incarceration can be attributed to criminal threat narratives¹². Also consistent with expectations, the homicide rate has an indirect effect on the Black-to-White prison admission rate ratio (0.90, $P < 0.001$) and Black prison admission rate (0.16, $P < 0.01$) by acting through criminal threat narratives, but there is no comparable indirect effect for the White prison admission rate (-0.10 , $P = 0.26$).

The analyses thus far support hypotheses on the relationship between criminal threat narratives, the homicide rate, and incarceration. However, it is possible that changes in criminal threat narratives may not inspire political action but instead result from public opinion or elite initiatives that direct attention toward crime. Supplementary Table S3 and Supplementary Figure S2 of the Supplementary Materials report sensitivity analyses that test these possibilities using Granger tests to control for feedback loops. Results align with primary findings, indicating that there is a reciprocal relationship between criminal threat narratives and public support for punitive

Table 6. Error Correction Models of Change in the National Incarceration Rate, 1926–2016

	1	2	3	4	5	6	7	8
Δ Criminal threat	0.436 (0.952)		0.151 (0.847)	0.003 (0.943)	0.671 (0.928)	0.720 (0.872)	0.601 (0.867)	0.545 (0.823)
Criminal threat $t - 1$	2.977*** (0.405)		2.253*** (0.478)	2.148** (0.452)	2.174** (0.596)	2.179** (0.687)	2.159** (0.687)	1.994** (0.622)
Δ Homicide rate per 100,000 capita		-1.679 (1.466)	-2.323 (1.424)	-2.660 (1.493)	-2.305 (1.521)	-3.692* (1.594)	-3.601* (1.585)	-3.373* (1.567)
Homicide rate per 100,000 capita $t - 1$		2.921*** (0.347)	1.843*** (0.436)	2.306*** (0.612)	2.428*** (0.573)	1.567* (0.699)	1.508* (0.749)	1.676* (0.713)
Δ Economic threat				0.008 (0.353)	-0.080 (0.352)	0.025 (0.330)	0.030 (0.327)	
Economic threat $t - 1$				0.227 (0.274)	0.112 (0.281)	0.146 (0.267)	0.094 (0.268)	-0.027 (0.252)
Δ Political threat				0.652 (3.061)	0.866 (2.730)	-0.982 (2.620)	-0.854 (2.678)	
Political threat $t - 1$				1.225 (2.578)	0.450 (2.518)	-1.364 (2.512)	-1.959 (2.512)	0.248 (2.459)
Controls								
Δ Percent crime-related articles					0.109 (0.135)	0.078 (0.128)	0.063 (0.135)	
Percent crime-related articles $t - 1$					-0.197* (0.085)	-0.189* (0.085)	-0.171 (0.096)	-0.107 (0.080)
Δ Drug enforcement expenditures per million GDP					0.069 (0.098)	0.004 (0.099)	-0.015 (0.099)	-0.007 (0.095)
Drug enforcement expenditures per million GDP $t - 1$					-0.169** (0.059)	-0.253*** (0.067)	-0.263*** (0.068)	-0.251*** (0.063)
Δ Percent Black						1.397 (1.182)	1.469 (1.179)	
Percent Black $t - 1$						2.081 (1.539)	2.002 (1.546)	1.122 (1.205)
Δ Gini coefficient						49.692 (28.655)	43.114 (28.645)	36.879 (27.150)
Gini coefficient $t - 1$						98.787** (32.016)	91.647** (32.102)	77.601* (29.485)
Δ Unemployment rate						0.575 (0.351)	0.415 (0.359)	
Unemployment rate $t - 1$						-0.049 (0.176)	-0.028 (0.184)	-0.084 (0.168)
Δ Republican party strength							-0.108 (1.979)	-0.254 (1.851)
Republican party strength $t - 1$							2.246 (1.388)	1.812 (1.358)
Error correction rate $t - 1$	-0.002 (0.005)	-0.002 (0.005)	0.005 (0.005)	0.010 (0.007)	0.053* (0.025)	0.048* (0.024)	0.057* (0.025)	0.057* (0.022)
Drift	-3.777* (1.501)	-19.427*** (2.873)	-14.816*** (2.956)	-19.361*** (5.152)	-23.207*** (5.481)	-82.536** (25.027)	-80.751** (25.109)	-63.653** (20.838)
F	19.50***	26.66***	21.09***	11.52***	10.67***	9.30***	7.78***	10.48***
R ²	0.407	0.310	0.557	0.564	0.646	0.716	0.706	0.697

*P < 0.05, **P < 0.01, ***P < 0.001 (two-tailed test).

Table 7. Error Correction Models of Change in Black and White Prison Admission Rates, 1926–2016

	Δ Black prison admission rate		Δ White prison admission rate		Δ Black-to-White prison admission rate ratio	
	9	10	11	12	13	14
Δ Criminal threat	0.041 (0.074)	−0.004 (0.093)	−0.000 (0.001)	−0.001 (0.001)	0.221*** (0.044)	0.298*** (0.053)
Criminal threat $t - 1$	0.074* (0.034)	0.163* (0.080)	0.000 (0.000)	0.001 (0.001)	0.122*** (0.030)	0.196*** (0.050)
Δ Homicide rate per 100,000 capita		−0.015 (0.015)		−0.022 (0.021)		0.061 (0.092)
Homicide rate per 100,000 capita $t - 1$		−0.026 (0.010)		0.067*** (0.002)		−0.058 (0.048)
Δ Economic threat		−0.041 (0.051)		−0.009 (0.007)		−0.018 (0.023)
Economic threat $t - 1$		−0.042 (0.041)		−0.007 (0.006)		−0.038 (0.021)
Δ Political threat		−0.100 (0.073)		−0.015 (0.010)		0.027 (0.183)
Political threat $t - 1$		−0.058 (0.053)		−0.010 (0.007)		−0.035 (0.187)
Controls						
Δ Percent crime-related articles		0.011 (0.016)		0.005* (0.002)		−0.017 (0.008)
Percent crime-related articles $t - 1$		0.000 (0.001)		0.000 (0.000)		−0.008 (0.006)
Δ Drug enforcement expenditures per million GDP		−0.019 (0.009)		−0.003* (0.001)		0.002 (0.006)
Drug enforcement expenditures per million GDP $t - 1$		−0.011 (0.007)		0.000 (0.000)		0.008* (0.003)
Δ Percent Black		0.105 (0.118)		0.020 (0.017)		0.006 (0.008)
Percent Black $t - 1$		0.261 (0.170)		0.048 (0.026)		0.020 (0.012)
Δ Gini coefficient		0.716** (0.281)		0.188* (0.074)		1.768 (1.793)
Gini coefficient $t - 1$		0.692 (0.394)		0.189** (0.061)		3.353 (1.997)
Δ Unemployment rate		0.000 (0.000)		0.000 (0.000)		0.015 (0.022)
Unemployment rate $t - 1$		0.000 (0.000)		0.000 (0.000)		0.011 (0.011)
Δ Republican party strength		0.003 (0.024)		0.015 (0.035)		0.075 (0.121)
Republican party strength $t - 1$		0.027 (0.020)		0.049 (0.029)		0.004 (0.091)
Error correction rate $t - 1$ ^a	−7.776* (3.555)	−27.020** (9.714)	−3.100 (3.700)	−52.770*** (11.960)	−11.434*** (0.031)	−0.126** (0.046)
Drift	0.036 (0.127)	0.432 (0.287)	0.023 (0.026)	0.897* (0.437)	0.227* (0.104)	−2.963 (1.921)
F	2.256*	1.252	0.433	1.943*	12.83***	2.536***
R ²	0.100	0.374	0.021	0.487	0.309	0.598

*P < 0.05, **P < 0.01, ***P < 0.001 (two-tailed test). ^aError correction rate is the lagged dependent variable prior to first differencing. Coefficients multiplied by 100 for Black and White prison admission rate outcomes for ease of interpretation.

Table 8. Mediation Analysis of Indirect Effects with Criminal Threat Narratives as Mediator

	Total Effect	Direct Effect	Indirect Effect	Proportion Mediated
Percent Black	0.109 (0.172)	0.010 (0.023)	0.099 (0.170)	0.930
Economic threat	0.295 (0.232)	0.097 (0.231)	0.198 (0.101)	0.672
Political threat	-1.432 (2.144)	-1.116 (2.003)	-0.316 (0.758)	0.140
Percent crime-related articles	-0.010 (0.211)	-0.171 (0.120)	0.072* (0.032)	0.363
Homicide rate	3.072*** (0.957)	1.515* (0.770)	1.557** (0.524)	0.505

*P < 0.05; **P < 0.01; ***P < 0.001 (Two-tailed test). p-values calculated using 10,000 Monte Carlo samples (Imai et al. 2010). Standard errors in parentheses. All mediation analyses include the full set of controls. Change in incarceration rate is the outcome.

policy, but that neither congressional attention nor trends in presidential discourse affect criminal threat narratives when reverse causality is controlled. Instead, criminal threat narratives have a significant *indirect* effect on incarceration by acting through each variable. This result supports the reasoning that criminal threat narratives motivated change in elite behaviors, rather than political elite manipulating media cycles to their benefit.

In sum, findings illustrate the sizable effect of homicides and criminal threat narratives on the national incarceration rate. Consistent with expectations, results from ECM reveal that increases in the homicide rate and criminal threat narratives had powerful implications for the incarceration rate but provided little evidence of demographic, political, or economic threat effects. The influx of criminal threat narratives can be traced to the homicide rate, which has an indirect effect on the incarceration rate and racial disparity in prison admissions by acting through criminal threat narratives. Collectively, these findings support hypotheses on homicide, racial threat narratives, and their intertwined effects on incarceration.

Discussion

This study advanced a temporal account of homicide, racial threat narratives, and the historical growth of incarceration. Descriptive results reveal period specific variation consistent with expectations regarding the intertwined increase in the homicide rate and criminal threat narratives. Regression results document institutionally specific effects, where criminal threat narratives and the homicide rate are both associated with long-term increases in the incarceration rate, whereas economic, political, and demographic threats are not. Further, the homicide rate has an indirect effect on the change in incarceration rate, Black prison admission rate, and ratio of Black-to-White prison admission rates by acting through criminal threat narratives.

These findings carry several important implications for our understanding of how homicide and racial threat narratives shaped the historical rise of incarceration in the United States. First, although prior research has directed attention to demographic contexts as a cause of threat (Blalock 1967; Quillian and Pager 2001; King and Wheelock 2007), few studies have examined why the same racial group can inspire distinct threat perceptions in different historical periods. Drawing on Blumer (1958), I argued that one reason for these inconsistencies may have to do with change in threat narratives. Consistent with this explanation, results reveal period-specific variation, where economic and political threat narratives thrived during the Civil Rights era and criminal threat narratives rose during the period of prison expansion. The increase in criminal

threat narratives closely correlates with increases in the homicide rate, supporting theoretical reasoning on serious offending and the type of threat narrative that circulates media discourse.

Second, findings support hypothesized institutional specificity. Although threat theory reasons that criminal justice actors operate on the behalf of dominant groups to suppress minority group influence (Blalock 1967), I argued that threat narratives constrain institutional and policy behavior by tethering racial imageries to specific social issues, such as crime. Consistent with this reasoning, criminal threat narratives have a long-term effect on the incarceration rate, whereas economic and political threat narratives do not. Supplementary analyses further reveal issue-specific mechanisms that link criminal threat narratives to incarceration—public punitiveness, presidential discourse, and elite attention. These findings suggest that racial threat narratives can shape the type of institutional response used to address perceived threats through their effects on public opinion and elite behavior. Thus, although results favoring threat theory have been mixed in prior research on incarceration (Greenberg and West 2001; Jacobs and Carmichael 2001; Spelman 2009; Enns 2016), my findings suggest that criminal threat narratives played an important role in the national rise of incarceration.

Third, findings offer new insight to the relationship between homicide and incarceration. In critiquing the role of homicide, Alexander (2010: 101) contends that “murder convictions tend to receive a tremendous amount of media attention ... [but] homicide convictions only account for a tiny fraction of [the prison population].” Results suggest that it is partly because of media attention that homicides exert a unique effect on incarceration. The homicide rate has an indirect effect on the incarceration rate and on racial disparity in admission rates by acting through criminal threat narratives. Findings also scaffold arguments on the importance of accounting for long-term relationships and distinguishing between prison “stocks” and “flows” in analyses of crime and incarceration (Spelman 2009; Enns 2016; Pfaff 2017). By estimating the long-term effect of the homicide rate on the *change* in incarceration rate, results support the argument that serious offenses had a sizable effect on incarceration. Part of this effect is direct, increasing the number of incarcerated persons serving long inflexible sentences, and part is indirect, shaping the type of racial threat narrative that circulates media discourse.

Collectively, these findings offer a new theoretical perspective on racial threat and homicide that can be explored in future research. First, because an analysis of trends in threat perceptions requires a richer data source than is available for the current observation period, I am unable to quantify changes in threat perceptions. A promising direction for future studies is to examine the effect of threat narratives on perceptions of racial threat. Second, arguments surrounding the institutionally specific effects of threat narratives should, in principle, extend beyond the criminal justice system. Future studies should explore this possibility by testing the effect of different types of threat narratives on distinct policy and institutional outcomes (e.g., social spending policies, voter restriction laws).

Finally, this study provides a methodological contribution by demonstrating how machine learning can be used to improve sociologists’ ability to measure key themes in public discourse. Although past studies rely on key words to quantify themes in news articles (Enns 2016; Miller 2016; Shi et al. 2020), this coding scheme is ill-suited to measure the types of complex themes that are often of sociological interest. Supervised machine learning methods provide a strategy for incorporating the rich contextual thematic codes provided by qualitative document analysis into quantitative measures. Sociologists can apply these methods to measure complex themes in media discourse in large, unstructured text data.

In sum, this study advanced and evaluated a temporal account of homicide and racial threat that regards media discourse as a mediator linking serious offending to social control. Results support core claims regarding period-specific variation in criminal threat narratives, its relationship to the homicide rate, and threat effects on incarceration. Collectively, these findings advance media discourse as an important factor in the dynamics of racial threat and demonstrate how homicide can shape racial threat narratives with long-term implications for mass incarceration.

Endnotes

1. Although key word criteria improve upon index methods that rely on the categories assigned by news outlets (Earl et al. 2004: 74–76; [Kellstedt 2003](#): 27), the method is limited in that it can include documents that use key phrases euphemistically. Common practice for addressing this issue involves manually excluding irrelevant documents ([Bail 2016](#); [Kellstedt 2003](#); Savelsberg and Brehm 2016). As detailed below, the hand-coding practices I used to assign threat themes accounted for whether documents were irrelevant. Further, assessments of algorithmic performance described below demonstrate that the learning algorithm accurately recaptures human codes, meaning that the learning algorithm does a good job of processing irrelevant documents.
2. Roughly 82% of crime-related articles contained the word “crime.” Regression results are robust when articles uniquely sampled from the “rape” and “murder” keywords are excluded.
3. Race related documents were included using the same criteria as [Kellstedt \(2003\)](#), where a document must include at least one of the following terms: “negro” and “African American.” Documents that mentioned “black” were included if they also mentioned either “negro” or “African American.”
4. I used Lasso regularization during the estimation stage. Lasso regularization excels at feature extraction in noisy text data, as it shrinks the weight assigned to non-informative words to 0 ([Zou and Hastie 2005](#)).
5. Data on race-specific prison admission rates are missing for much of the 1950–1970 period, giving the race-specific analysis a smaller dataset for analysis.
6. Data on index crime rates are not available for the entire observation period. Results are robust when the analyses are replicated for the 1950–2016 period where index crime rates are available.
7. The Bureau of Labor statistics began recording annual unemployment rates in 1929. I supplement these data with [Smiley's \(1983\)](#) estimates of the national unemployment rate from 1926 to 1928.
8. Variance inflation factors were below 4 for all explanatory variables.
9. The negative short-term coefficient for the homicide rate reflects reverse causality, where increases in incarceration are associated with short-term decreases in crime ([Spelman 2008](#)). Thus, I do not interpret the short-term coefficient in primary results, but rather retain it in ECM so that the long-run coefficient for the homicide rate is not confounded with this reverse causal path. Granger tests in the Supplementary Materials ([Supplementary Figure S2](#), [Supplementary Table S3](#)) show that primary findings are robust in analyses that eliminate reverse causation.
10. Diagnostics and expanded discussion of each race-specific ECM are available in the Supplementary Materials ([Supplementary Table S2](#) and [Supplementary Figure S1](#)).
11. The benefit of this approach is that the indirect effects are estimated in a potential outcomes framework. For a single simulation trial, the independent variable is increased in value and used to predict the mediator. Then the simulated value of the independent variable and mediator are used to predict the change in incarceration. The average difference in incarceration rates across simulations is the indirect effect.
12. A “placebo” mediation analysis that treats the homicide rate as the mediating variable and criminal threat narratives as the explanatory variable is nonsignificant.

About the Author

Scott Duxbury is an assistant professor of sociology at University of North Carolina at Chapel Hill interested in social control, race, networks, drug markets, and computational social science. His research has appeared in *American Sociological Review*, *American Journal of Sociology*, and *Social Forces*, among other outlets.

Supplementary Material

Supplementary material is available at *Social Forces* online, <http://sf.oxfordjournals.org/>. lcal.

Data Availability Statement

Data underlying this article cannot be shared due to contractual arrangements with the third-party data provider.

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