Locked Down, Lashing Out: COVID-19 Effects on Asian Hate Crimes in Italy

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COVID-19 caused a major health crisis and an economic crisis, conditions identified as conducive to stigmatization and hostility against minority groups. It is however unclear whether the threat of infection triggers hate crimes in addition to stigmatization and whether such a reaction can happen at the onset of an unexpected economic shock, before social hierarchies can be disrupted. Leveraging variation across Italian municipalities, we show that (i) hate crimes against Asians increased substantially at the pandemic onset and that (ii) the increase was concentrated in cities with higher expected unemployment but not higher excess mortality. We then examine individual, local, and national mobilization as potential mechanisms and find evidence suggesting that (iii) a xenophobic national discourse and local far-right institutions motivate hate crimes, while we find no strong support for the role of individual prejudice. Our study identifies new conditions triggering hateful behavior, advancing our understanding of factors hindering migrant integration.

Exclusionary attitudes toward immigrants are on the rise in Europe: the number of native-born Europeans who oppose admitting ethnic minority immigrants into their country has increased by more than 30% in the past two decades.[1] Relatedly, far-right parties now control 10% of the seats in the European Parliament.[2]

Given that exclusionary attitudes can adversely affect immigrants' integration—both through public policies and day-to-day interactions between immigrants and the native-born—it is important to understand the drivers of such attitudes and how they are expressed. COVID-19, as an external threat to the social and economic order, is a likely contributor to dominant-group grievances and might therefore find its expression in violent behaviors such as hate crimes. Using the case of Italy, one of the pandemic's earliest and hardest hit countries, we ask whether the COVID-19 pandemic has caused an increase in the incidence of hate crimes against minority immigrant groups. And, if so, why?

Hate crimes against migrant groups have been increasing in many Western democracies, even before the COVID-19 outbreak (Dancygier et al. 2022). Moreover, even if rare, hate crimes can have widespread impact on targeted communities. Following hate crimes, and other extreme forms of hostility, members of targeted groups have been shown to modify their behavior: change how they dress, avoid certain locations (Perry and Alvi 2012), relocate to "migrant" neighborhoods (Bell 2013), withdraw their kids from public schools (Fouka 2020), and generally retreat into "safe spaces" that minimize interaction with members of the native-born majority. Given the evidence documenting the negative relationship between hateful crimes and migrant integration (Dancygier and Green 2010), and the positive spillover of successful integration (Hainmueller,

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1. Computed from the European Social Survey, 2002–18 (https://www.europeansocialsurvey.org/).
2. Data Europa Portal (https://data.europa.eu/en), as of May 2021.

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Hangartner, and Pietrantuono 2015), whether and why COVID-19 caused an increase in hate crimes is a timely question with important implications for both theory and policy.

Past work has explained hate crime incidence as a reaction to real or perceived threats to dominant groups, particularly caused either by broad structural changes, including economic transformations and the increasing political power of previously disenfranchised groups, or as a result of sudden life-threatening events, like terrorism. While multifaceted, COVID-19 has first and foremost triggered both a health crisis and a negative economic shock. To the extent that Chinese migrants (in Italy and elsewhere) have been portrayed as responsible for spreading the disease (Reny and Barreto 2022), it is possible that being construed as posing a (health or economic) threat would unleash a violent backlash. Past work, however, provides mixed evidence suggesting this possibility is far from a forgone conclusion.

The literature linking economic threat to intergroup violence has generally focused on the role played by increased competition over scarce resources (Dancygier 2010; Olzak 1994). In these cases, resource competition is caused by economic decline due to long-term structural changes (such as globalization, automation, or migration) that threaten to disrupt existing social hierarchies. Methodologically, with few exceptions (e.g., Sharma 2015), past studies have tested the economic decline hypothesis cross-sectionally. In response to mixed findings questioning whether economic downturn causes an increase in hate crimes, some argue that economic decline contributes to hate crime incidence only in the presence of other supporting factors, such as an extreme-right government (Green, Glaser, and Rich 1998).

The threatening events literature—which has developed separately from the economic factors research—has narrowly focused on minorities perpetrating terror attacks (Deloughery, King, and Asal 2012) or serious crimes such as sexual assault (Jäckle and König 2018). Offering a psychological (rather than structural) explanation for hate crime, these studies argue that such events, which are massive but punctual, instill fear that is directed at the out-group. From this perspective, health threats can be thought of as a particular type of threatening event, in which the threat of infection triggers fear and disgust, provoking in turn stigmatization and xenophobia (Taylor 2019). Indeed, past studies have documented a relationship between disease outbreak and exclusionary attitudes toward migrants and other minority groups (e.g., Navarrete and Fessler 2006), but it remains unclear whether those attitudes are enough to spark antimigrant crimes.[3]

We bridge the economic threats and threatening events literature with the case of COVID-19, as an example of a sudden threatening event that also has economic consequences, plausibly thus having both structural and individual-psychological influence on intergroup violence. We complement the economic threats studies with an event that may affect hate crime but not through long-term economic restructuring. Nor is this a case of resource competition, given that in Italy, like in other Organization for Economic Cooperation and Development (OECD) countries, Chinese immigrants do not usually work in the industries most affected by the pandemic, like hospitality.[4] And while the threatening trigger events studies mainly focus on fear to explain violent retribution against out-groups, our case accounts also for the possibility of scapegoating (Snowden 2019), that is, blaming an out-group for grievances they did not cause.

We employ a data set of hate crime across Italy starting in 2007 compiled by a local nongovernmental organization (NGO). We classify the victims' ethnic background from the description of the crime and test whether the onset of the pandemic increased hate crimes against Asians. Using a generalized fluctuation test on the trend of monthly hate crimes, we confirm a structural break that coincides with the pandemic outbreak, corresponding to an eightfold increase in hate crimes in February–March 2020, compared to pre-COVID levels. We further show that the increase in hate crime was limited to Asians—that is, it did not spill over to other migrant groups. Finally, we demonstrate that while hate crime incidence dropped following the February 2020 peak, crimes against Asians remained higher than before COVID-19, suggesting some persistence in the effects of the triggering event a year into the pandemic.

Second, we analyze the spatial distribution of hate crime to learn about its causes. In particular, we test whether hate crime incidence was more likely to increase where the effect of the pandemic on (*a*) unemployment and (*b*) mortality was most pronounced. Using the sectoral employment composition of Italian municipalities to measure COVID-19's local economic impact, and a difference-in-differences (DID) estimation strategy, we find that the increase in hate crime against Asians was concentrated in municipalities that were most exposed economically. By contrast, we do not find evidence that COVID-19's localized health impact, measured using excess deaths, was responsible for the increase in hate crimes.

How does an economic shock increase hate crimes against a migrant out-group, when that group is not competing directly

3. Although see Adida, Dionne, and Platas (2020), who did not find that the Ebola crisis worsened attitudes toward Africans in the United States.

4. Most Chinese migrants in Italy are employed in commerce (62%) and in specialized industrial manual labor (22%; Ministry of Labor and Social Policies 2017, 5).

with the native-born in exposed occupational sectors? We explore three possible mechanisms described, but rarely tested, by the literature: (1) *individual* activation of preexisting prejudice (proxied using right-wing parties' vote share in national elections), (2) *local* mobilization facilitated by opportunistic political behavior (measured using an indicator of extreme-right mayors, along with an assessment of their social media statements), and (3) *national* mobilization caused by a perceived change in social norms condoning exclusionary attitudes against Chinese people (measured using national newspaper and Twitter data and a sentiment classifier in Italian). We find support for national media mobilization and the effect of local-level political factors but not for prejudice. We advance research relating threat and fear to antimigrant violent behavior, and in doing so we contribute to our understanding of factors hindering migrant integration.

THEORETICAL FRAMEWORK

While the precise definition of hate crime varies across jurisdictions, there is a consensus that such crimes are motivated by animus against a targeted group—defined by its religion, race, ethnicity, gender, or sexual orientation—in an attempt to harm that larger group, not just the individual victim (Green and Spry 2014). Hate crimes are therefore message crimes, with the purpose of frightening vulnerable out-group members. In exploring COVID-19's possible effect on hate crimes, we build on three related bodies of work: threat theory, economic downturn, and the trigger events literature.

Threat theory

Psychological accounts of hate crime assume that certain cognitive and affective processes, in particular, threat, fear, frustration displacement and stereotypical beliefs, lead perpetrators to identify targets and to take action against them, in order to satisfy a need for revenge, or as a means to remove what is perceived as a growing threat. Past work has focused on identifying the contextual factors that give rise to those cognitive and affective dispositions. Threat, particularly, is thought to be the result of structural changes that may disrupt existing social, economic, and political hierarchies and thus facilitate a backlash against out-groups perceived to be "upstarts." Contextual factors, which are generally assumed to unfold over a protracted period, include desegregation of workplaces (Olzak 1994) and neighborhoods (Green, Strolovitch, and Wong 1998) and changes in relative group size (Quillian 1995) or political power (Dugan and Chenoweth 2020). In these studies, hate crimes result from efforts to preserve the status quo in the face of a changing landscape that is both destabilizing and threatening.

Economic downturn

Recent studies have linked anti-immigrant attitudes to changes in labor market conditions (Dancygier and Donnelly 2013), recessions (Anderson, Crost, and Rees 2020), and economic hardship more generally (Czaika and Di Lillo 2018). Moreover, the prejudice literature has long described a positive relationship between economic decline and violence against marginalized out-groups (D'Alessio, Stolzenberg, and Eitle 2002). The primary explanation for exclusionary attitudes and violence in these studies is that members of a dominant group are more likely to face real (or perceived) competition over resources with members of marginalized groups when they experience job and income loss. Such competition translates into hostility when minority group members are construed as a threat to the dominant group's economic security, interests, and status (Quillian 1995).

While the evidence that economic downturn increases exclusionary attitudes is rather robust, the evidence with respect to hate crime is mixed (Dancygier and Green 2010; Green and Spry 2014). Some studies suggest that hate crime increases with economic hardship. A positive association between hateful behavior and unemployment linked to intergroup competition has been observed in the United States (Medoff 1999), the United Kingdom (Dustmann, Fabbri, and Preston 2011), and Germany (Falk, Kuhn, and Zweimüller 2011). Closely related, Dancygier (2010) shows that local economic deprivation is associated with higher rates of violence against immigrant-origin minorities in the United Kingdom, a result the author explicitly ties to greater economic competition. Other studies, however, do not find a negative relationship between local economic conditions and hate crime (e.g., Krueger and Pischke 1997). Green and Spry (2014) argue that such evidence is inconclusive, in part, because past work has been insufficiently sensitive to statistical inference.

The literature on economic downturn and hate crime suffers from two additional shortfalls. Theoretically, the focus is on resource competition, failing to account for cases, such as our own, in which the targeted group does not directly compete with the dominant group over resources. In addition, past studies (e.g., D'Alessio et al. 2002) have generally sidestepped temporal considerations by assuming that worsening economic conditions, especially job and income loss, unfold over a protracted period. By leaving out discussions of economic shocks, past empirical studies have focused on cross-sectional variation rather than on change.

Threatening (trigger) events

The economy-centric studies of hate crime have, to date, developed independently from another branch of the literature that, following the 9/11 terror attacks, explored the role that

dramatic events play in triggering antiminority actions. The hypothesized mechanism is that threatening events, such as terror attacks, increase fear and distort the estimates of the risk posed by ordinary members of the out-group associated with the event. Trigger events are thus assumed to affect psychological dispositions but not structural conditions. This may explain why to date, with a few exceptions (e.g., Frey 2020), trigger events studies have narrowly focused on demonstrating how a galvanizing event increases overall hate crime incidence (e.g., Hanes and Machin 2014) but have not explored how it may change the spatial distribution of such crimes.

Epidemics are one type of threatening event: an outside unknown invader that attacks a population unprepared, triggering a sudden spike in mortality and instilling fear (Snowden 2019), particularly fear of being in close proximity to "others" associated with the disease's origin. Like the trigger events literature, scholarly work relating infectious diseases to stigmatization of out-groups provides an individual-psychological explanation. According to this literature, stigmatization is caused by our behavioral immune system (BIS)—a collection of psychological mechanisms that detect cues to the presence of infectious pathogens, triggering fear and disgust that motivate disease avoidance—which has evolved to being overly sensitive to cues that only superficially resemble environmental signs of infection, like skin color. Consistent with this response of the BIS, people who fear becoming infected might tend to blame out-groups for spreading the disease at higher rates (e.g., Aarøe, Petersen, and Arcenaux 2017). While past research generally finds a link between epidemic outbreaks and stigmatization of minority groups (Snowden 2019), it remains unclear whether such attitudes translate into violence. Furthermore, to our knowledge, there is no work assessing whether during an epidemic actual exposure to the risk of infection (here in terms of number of deaths) may manifest in violent behavior against an out-group.

Disease avoidance can explain how an out-group that is not the vector of the disease can nevertheless be held responsible. A similar process can happen when an unexpected economic crisis, rather than a health threat, is the trigger. From a psychological perspective, this form of scapegoating serves as an opportunity to make sense of personal failures (or socially shared frustrations) while maintaining one's positive self-image (or positive group identity) in the face of deteriorating conditions. This in turn can push individuals from dominant groups to lash out against vulnerable scapegoats (Pinderhughes 1993) loosely responsible for the sense of deprivation, even if the out-group is not competing with the dominant group directly over tangible resources.

We thus bridge the divide between the economic threats and threatening events literature by calling attention to the fact that certain salient events may themselves affect structural conditions, triggering fear, anxiety, and frustration directed at an out-group in the form of violence. Rather than narrowly focusing on trends in overall economic conditions, research tying economic factors to hate crime, we argue, should also explore the implications of rapid and unexpected change. We are unaware of previous research testing whether economic (and health) shocks lead to an increase in the incidence of hate crime.

COVID-19 AND CHINESE IMMIGRATION INTO ITALY

Italy was hit early by the pandemic. The first confirmed cases of COVID-19 were two Chinese tourists in Rome on January 31, 2020. Italy's early rate of infection was high: with intensive care units exceeding capacity and no treatment yet available, the number of deaths increased rapidly, reaching 12,000 by the end of March (ISTAT 2020a). The economic crisis followed suit. By February 22, the government ordered the lockdown of 10 municipalities, a decision extended to most of Northern Italy on March 8 and to the entire country the following day. On March 13, nonessential businesses were ordered to close. Even before lockdowns came into effect, mobility had dropped dramatically (Cartenì, Di Francesco, and Martino 2020), with dire implications for the tourism, transportation, hospitality, and retail sectors. As a result, the salience of the economic consequences for these sectors in particular, but also for the economy as a whole, increased in the national media (see, e.g., Giannini 2020). Accordingly, given public opinion data published by the World Economic Forum, since as early as February, Italians perceived the pandemic as posing a high threat to their jobs and businesses but less so to their health. Consistently, from social media behavior, we find that early in February, people were more concerned about the pandemic's outbreak in places that rely economically on the hospitality industry (the details of these analyses are in app. K).

From early on, the COVID-19 outbreak was attributed to China. During January and February 2020, the Italian media reported rather extensively on the origin of the virus in Wuhan province. As in other countries, far-right elites framed the pandemic as the direct responsibility of people of Chinese origin (Vachuska 2020). Luca Zaia, the governor of Veneto and an emerging leader of the anti-immigration Lega party, suggested that COVID-19 was caused by poor Chinese hygiene (Levine 2020). Other local politicians echoed the message. For example, the right-wing mayor of Solto Collina (in Bergamo) tweeted death wishes to Chinese COVID-19 patients (Puente 2020). However, not all politicians followed this

example. Again in Bergamo, the mayor of Gori and his cabinet dined at a Chinese restaurant to express solidarity with the local Chinese community (*L'Eco di Bergamo* 2020).

In early 2020, the Italian media started reporting racially motivated attacks against Asians. Incidences of Sinophobia included, among others, a Chinese-origin professor at the University of Milan verbally abused on a train (Puente 2020), Chinese tourists insulted and spat on while visiting Venice (*TGR* 2020), and children with Chinese-origin parents prevented from attending school allegedly to reduce the risk of contagion (Chiarini 2020).

It is, however, unclear whether these Sinophobic attacks constitute a significant break from prepandemic crime rates against Asians. The Chinese immigrant community in Italy is both large (over 300,000 residents) and established, with immigration waves taking off in the 1980s (Zhang 2019). As a result of Italy's *jus sanguinis* citizenship policy, Chinese immigrants are not well integrated: only 20% of the second generation identifies as Italian (Marsden 2014). Weak national identity coupled with entrepreneurial success has, in turn, led many native-born citizens to perceive Chinese Italians as a suspicious "outgroup" (Willey 2007). Accordingly, episodes of hateful behavior against Chinese people at the pandemic's onset might not necessarily imply a significant break from past behavior. Additionally, it is unclear whether COVID-19 triggered an increase in hate crime that is specifically targeted against Asians or that more broadly aimed at migrant groups.

DID COVID-19 INCREASE HATE CRIME IN ITALY?

Hate crimes data

Police data on hate crimes in Italy are only available at the national level, aggregated by year, and do not include the victim's ethnicity.[5] Instead, we use data from Lunaria, an NGO that curates information from the media, partner organizations, and direct reports to the NGO. These data are the only source of reliable information on hostile behavior against minorities available at the municipality level. Lunaria's data, however, capture only about two-thirds of hate crimes registered by the police, and accordingly the NGO does not guarantee that its data are complete. Despite this limitation, Lunaria's data are useful for our study's purpose. First, the types of crimes captured by Lunaria are comparable to those reported by the police. This is true also for physically violent crimes, which tend to be overestimated in data exclusively relying on news reports (Falk et al. 2011). Second, Lunaria relies on information from a vast network of partner organizations, including more than 1,400 different local and online sources across the country. Lunaria collects information from direct sources, reducing the risk of capturing only crimes that are salient in the news. Third, Lunaria is considered the most reliable source by international organizations that use their data, like the UN High Commissioner for Human Rights and Human Rights Watch.[6] Finally, in appendixes E and H we thoroughly probe and rule out the possibility that reporting biases and measurement error drive our results.

Lunaria's data include the date, the location, a description of the reported case (which may be an instance of discrimination or violence), and a case classification. Types of cases include verbal and physical violence, damage to property, instances of discrimination, and other forms of intimidation. Consistent with previous literature (e.g., Green and Spry 2014), we refer to all of these cases as hate crimes, as they are directed at harming or threatening members of a specific out-group. We use the description of the crime to extract information about the victims' background, particularly their country of origin and religion. Appendix A describes the process we devised to automate the extraction of victims' background information, and figure B1 presents the distribution of crimes by victim's origin and type of crime. During the period covered by Lunaria—from January 2007 to December 2020—a total of 7,895 hate crimes were recorded, and at least one took place in 1,327 of Italy's 7,943 municipalities.[7] Hate crimes against Asians are a rarer event: only 182 municipalities ever experience such crime during the period of observation. However, they are geographically dispersed across the country (fig. B2).[8] In the analysis below, we test for structural breaks in the trend using a subset of 4,670 hate crimes for which the description identifies an immigrant of a specific origin.

Results: National-level analysis

COVID-19's onset undoubtedly increased the incidence of hate crimes in Italy. Figure 1*A* shows the number of crimes against ethnic minorities and immigrant groups since 2007 (fig. 1*B* zooms to the period since 2018 and to crimes against Asians and Africans). Crimes targeting immigrants and ethnic minorities

5. See the Italian Observatory for Security against Acts of Discrimination (https://www.unar.it/portale/oscad-osservatorio-per-la-sicurezza-contro-gli-atti-discriminatori-).

6. See, e.g., Human Rights Watch (2011) and OHCHR (2019).

7. Lunaria confirmed that it did not alter its data collection method and sources because of COVID-19.

8. We often study rare but important events. The probability of observing a civil war in a country during 1945–2016 is 0.012 (Sambanis and Schulhofer-Wohl 2019), which compares to a probability of 0.022 of an Asian hate crime in a municipality in our sample.

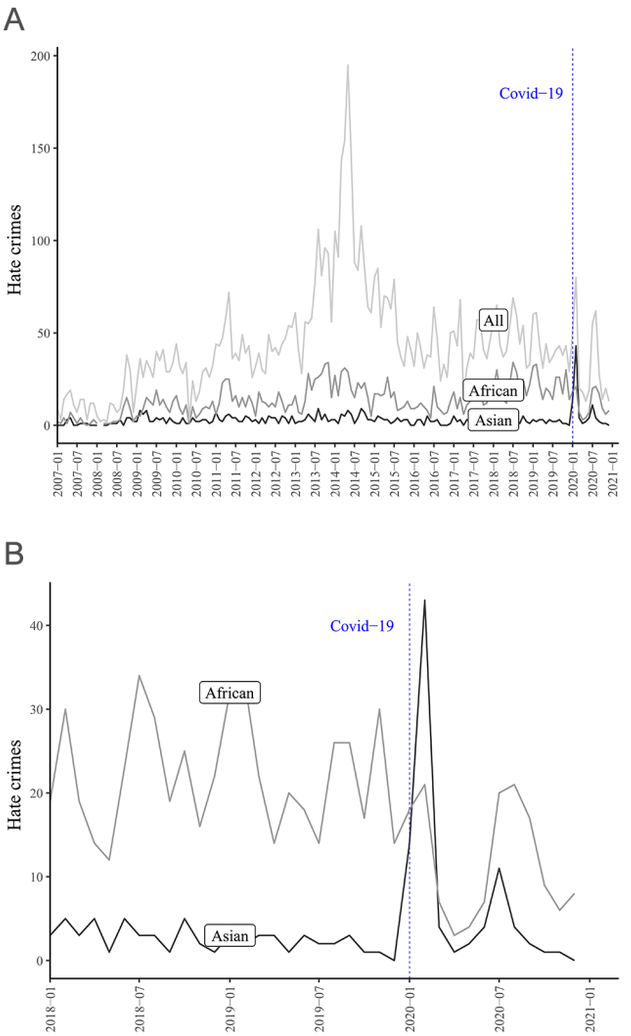

Figure 1. Hate crime trends. *All* includes hate crimes targeting ethnic minorities and immigrant groups, regardless of having information about the victim's region of origin. *African* and *Asian* refer to crimes against identifiably African- and Asian-origin immigrants, respectively; *B* highlights trends since January 2018. Data source: Lunaria.

from any origin (*All*) follow a steady trend, with a large increase in 2014 due to the influx of Syrian refugees and African migrants into Italy. By contrast, hate crimes targeting Asians are around zero right until they peak dramatically in February 2020. Remarkably, in this month, Asian hate crimes exceeded crimes against African-origin immigrants, the most targeted group before the pandemic's outbreak.[9] With the restriction of movement measures imposed by the end of March 2020, hate crimes against any group dropped below pre-COVID levels, increasing again by June when freedom of movement was restored, and dropping back again with the reintroduction of restrictions in October.[10] Importantly, during the period in between movement restrictions (July–October), crimes against African-origin immigrants increased back to pre-COVID levels, but crimes against Asians remained above pre-COVID levels, suggesting that attacks against Asians persist over time.[11] However, compared to the February 2020 peak, the following peak (in July) was of lower intensity, which suggests as well that the xenophobic response is especially concentrated in the months just after the pandemic breakout.[12] This is in line with previous studies finding immediate and short-lived xenophobic responses to triggering events (e.g., King and Sutton 2013).

A generalized fluctuation test on the trend of monthly Asian hate crimes confirms a structural break due to COVID-19. As shown in figure B3a, the empirical process, which captures the fluctuation in residuals of a linear regression of monthly crimes on the intercept, crosses the limiting process boundaries, indicating that the fluctuation is improbably large, leading us to reject the null hypothesis of no structural breaks. Reassuringly, the estimated optimal breakpoint is December 2019, just before the pandemic's outbreak. In addition, in appendix G, we present a causal estimation of the pandemic effects on Asian hate crime. We find that, in the months of February and March 2020, there are an additional 42 Asian hate crimes compared to the expected number had the pandemic not occurred.

We find no evidence that hate crimes spill over to other ethnic minority groups: the generalized fluctuation test for Africans does not indicate a structural break at the pandemic's start (fig. B3b), and the average hate crime rate did not increase with COVID-19 (table B2). Furthermore, the p-value of a Chow test assessing a structural break in the trend of African crimes in January 2020 is .34, while the p-value for the same test on Asian crimes is .0015. This result holds for all other non-Asian groups we tested, except for immigrants from Eastern and Southern Europe who experienced less rather than more attacks. We conclude that hate crimes against Asians increased as a result of COVID-19. In the next section, we use

9. Lunaria's crime descriptions are usually insufficiently specific to distinguish East from South Asians in the main analysis. Nevertheless, where this distinction can be made, the proportion of crimes against South Asians decreased from 65% to 7% with COVID-19, which suggests that pooling these two groups may be downward biasing our estimate of the effect on East Asians.

10. Hate crime incidence during the two strict lockdown periods (April–June and November–December) was no more than 45% of the average number of hate crimes committed in the same period over the four previous years (fig. C1).

11. During this period, Asian hate crimes hit a record high compared to the same period in previous years (fig. C2).

12. Table B1 presents examples of hate crimes against Asian-origin people during the February 2020 peak.

the geographical distribution of hate crime to learn about its causes. Given that the restriction of movement measures greatly disrupted social dynamics, distorting, in turn, the patterns of hate crime, our analyses center on the months before such measures were imposed (until March 2020). Notwithstanding, in appendix C we show that the main results hold when we account for all months until December 2020.

Spatial distribution: Local health and economic environments

We turn to assess the motives for the observed increase in hate crimes against Asians, leveraging spatial variation in municipalities' exposure to (*a*) pandemic-related deaths and (*b*) pandemic-related unemployment.

Measurement of local exposure to infection. To approximate individuals' perception of the threat of infection, we estimate excess deaths associated with COVID-19 in January 2020 in each of Italy's municipalities. We follow guidelines from the Centers for Disease Control and Prevention to compute a municipality's excess deaths by comparing the observed counts of deaths in January 2020 against its expected counts, estimated using monthly death trends since 2017 (from the Instituto Nazionale di Statistica [ISTAT]) and Farrington's surveillance algorithm (as implemented in the R package surveillance). We define municipalities with excess deaths above the median as high exposure and those below as low exposure. Given that Italy acknowledged the first case of COVID-19 at the end of January 2020, it is possible that January excess deaths do not entirely capture individuals' perception of infection exposure. However, as figure B4 shows, January excess deaths are a good predictor of excess deaths in February, when the population was acutely aware of the disease threat. Moreover, January excess deaths already present a substantive uptick compared to previous months (fig. B5), suggesting that excess deaths in January are a good indicator of the severity of the pandemic's threat of infection. Importantly, the effects on hate crime are not sensitive to the choice of month in the computation of excess deaths.

Measurement of local economic vulnerability. Using sectoral composition data of the local economy, we construct a pretreatment measure of municipalities' economic vulnerability to COVID-19.[13] We compute the share of a municipality's workers employed in tourism, hotels, restaurants, and transportation and define municipalities with a share above the median as high exposure and those below as low exposure. Our sectoral measure captures pandemic-related unemployment accurately: since February 2020 these sectors were already expected to suffer from both underemployment and unemployment.[14] Moreover, our measure is an excellent predictor of the observed rate of regional unemployment in the first two quarters of 2020 (fig. B6).[15]

The death and unemployment exposure measures capture different dimensions of the pandemic's local effects. As shown in figure B7, the correlation between exposure to deaths and unemployment is weak and somewhat negative. Municipalities with high exposure to unemployment have (somewhat) lower exposure to deaths.

Empirical strategy. Neither excess deaths nor sectoral composition are randomly assigned, posing a challenge for causal inference from cross-sectional comparisons between high- and low-exposure municipalities. For example, municipalities that are more densely populated are more likely to have more pandemic-related deaths and also more likely to experience hate crimes. As shown in tables B3 and B4, before the pandemic, high- and low-exposure municipalities differ in important ways. We address this inferential challenge using a DID approach, which estimates the differential change in hate crimes over time in high- and low-exposure municipalities. This strategy accounts for fixed municipal-level characteristics that may determine both hate crime and exposure to death or unemployment, such as the preexisting level of social capital, degree of cosmopolitanism, and level of economic development. Causal identification of the health and economic effects on hate crime relies on the assumption that high- and low-exposure municipalities would have followed parallel trends in the absence of the pandemic outbreak. We show that this assumption holds in figure 2.

Estimation. For municipality g in month t, we estimate the following DID model:

$$y_{gt} = \beta D_{gt} + X_g' \lambda_t \gamma + \alpha_g + \lambda_t + \varepsilon_{gt}, \quad (1)$$

where D_{gt} is an indicator variable for above the median exposure to COVID-19-related deaths or unemployment during the months of February and March 2020; α_g is a municipality

13. Data are from the 2011 Industry and Services Census (https://www.istat.it/it/censimenti-permanenti/censimenti-precedenti/industria-e-servizi/imprese-2011).

14. See fig. 11 in ISTAT (2020b) reporting expected losses by sector. Transportation (−3%) and hospitality (−11%) are the most affected sectors.

15. Employment sectoral composition is rather steady across time; the correlation between the number of workers in the sectors of interest in 2011 and 2018 at the regional level is 0.93.

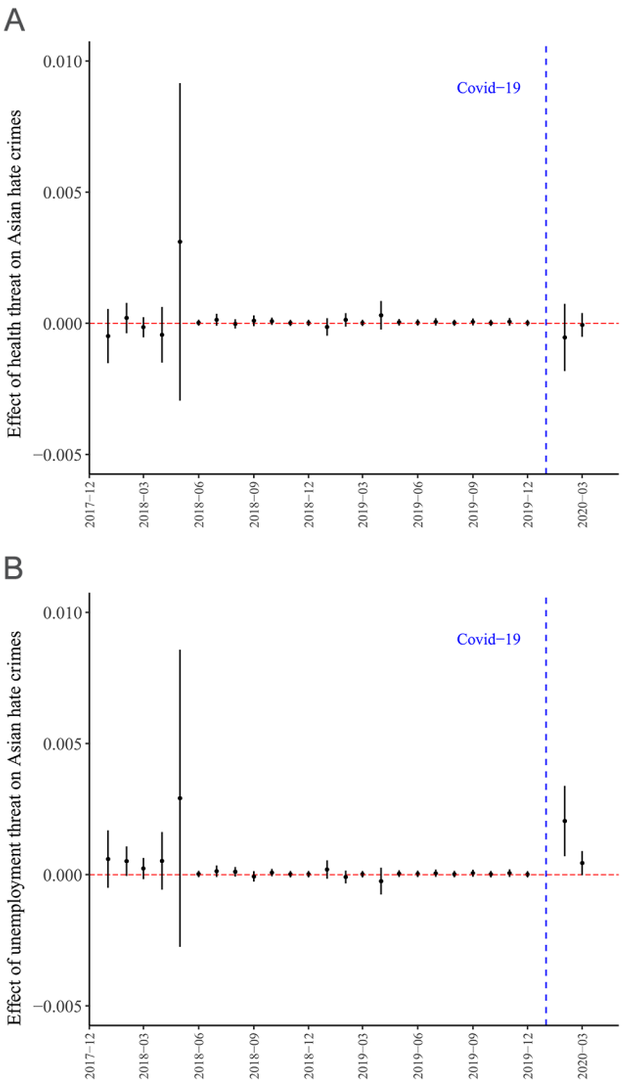

Figure 2. Snapshot of monthly-varying COVID-19 effects on Asian hate crimes. Points represent the estimated coefficients from a linear regression of Asian hate crimes per 10,000 residents on the interaction between monthly indicators and municipality indicators for (*A*) above the median deaths associated with COVID-19 and (*B*) an above the median share of workers in economic sectors affected by COVID-19. The model specification includes month and municipality fixed effects. Solid vertical lines are 95% confidence intervals. Data are from Lunaria (2007 to March 2020), the 2011 Industry and Services Census, and ISTAT deaths counts for 2017–20. The plot presents a snapshot of the effects since January 2018.

fixed effect, accounting for time-invariant municipality characteristics; and λ_t is a month fixed effect that accounts for monthly shocks common across municipalities. Additionally, we control for pre-COVID available municipality characteristics that may affect hate crime and also determine the local disease and economic environments. For example, it is possible that municipalities with more migrants experienced a higher number of deaths (absent safe work practices for migrants) and, at the same time, blamed the crisis on migrant communities, further causing more hate crimes. To account for this type of concern, $X_g'\lambda_t$ controls flexibly for the share of the foreign-born population, population without a college degree, population 65 years and older, and the party of the head of local government elected between 2014 and 2019.[16] The standard errors ε_{gt} are clustered by municipality to account for serial dependence.

The dependent variable y_{gt} is the number of Asian hate crimes per 10,000 residents in municipality g and month t, and $\hat{\beta}$ captures the differential effect of municipalities' exposure to pandemic related deaths or unemployment on hate crimes against Asians. We use a linear probability model as our preferred specification for two reasons: First, it allows us to interpret the effect estimates directly from the coefficients. Second, given that many municipalities do not experience Asian hate crimes during our studied period, the effect estimates are produced effectively using only the data from the Asian hate crime–experiencing set of municipalities. Despite such sample selection, the effect estimates are neither biased nor inefficient, but the marginal effects would be biased under a nonlinear model (Cook, Hays, and Franzese 2020). We use a linear model to avoid such bias. Notwithstanding, we show below that the results are robust to relaxing the linearity assumption.

Results: Municipal-level analysis

For illustrative clarity, figure 2 presents a snapshot of the monthly-varying effects of COVID-19 death and unemployment on Asian hate crimes, and figure B8 shows those effects for the entire period of analysis. The only statistically significant estimates are the positive coefficients for post-COVID-19 unemployment, particularly in February 2020 (figs. 2*A* and 2*B*). These patterns suggest that individuals exposed to a more threatening disease environment do not respond differently from individuals exposed to a less threatening environment. In contrast, individuals exposed to high economic distress do respond with more hateful behaviors against Asians than individuals exposed to less distress.[17]

Table 1 presents the estimated change in the number of Asian hate crimes per 10,000 residents in municipalities with relatively high deaths (panel A) and high unemployment (panel B) post–pandemic outbreak. Column 1 compares the rate of Asian hate crimes between municipalities with high

16. The results are robust to controlling for the population share of East and Southeast Asian immigrants (app. D). We do not include it in the main analysis because we have missing data for 7.5% of the municipalities.

17. These patterns remain unchanged when we include data from the months after the restriction on movement measures were imposed, which greatly disrupted social dynamics (fig. C3).

Table 1. COVID-19 Effects on Asian Hate Crimes

	(1)	(2)	(3)	(4)	(5)
A. Health threat:[a]					
Excess deaths	−.00000				
	(.00006)				
After January 2020	.00067*				
	(.00032)				
After January 2020 × excess deaths	−.00031	−.00031	−.00083	−.00091	−.00091
	(.00035)	(.00035)	(.00047)	(.00048)	(.00048)
Average hate crimes	.00015	.00015	.00017	.00014	.00014
R^2	.00000	.00650	.00706	.00706	.00713
B. Economic threat:[b]					
Expected unemployment	−.00002				
	(.00006)				
After January 2020	−.00010				
	(.00008)				
After January 2020 × expected unemployment	.00124***	.00124***	.00087***	.00084**	.00084**
	(.00036)	(.00036)	(.00026)	(.00028)	(.00028)
Average hate crimes	.00016	.00016	.00014	.00014	.00014
R^2	.00001	.00651	.00671	.00665	.00671
Month fixed effects	No	Yes	Yes	Yes	Yes
Municipality fixed effects	No	Yes	Yes	Yes	Yes
Flexible controls	No	No	Yes	Yes	Yes
Group-specific linear trends	No	No	No	Yes	Yes
Province-specific linear trends	No	No	No	No	Yes

Note. Dependent variable is monthly Asian hate crimes in a municipality per 10,000 residents. *After January 2020* indicates the period after the first confirmed case of COVID-19 in Italy. *Excess deaths* and *expected unemployment* indicate municipalities with an above the median number of deaths in January 2020 associated to COVID-19 and the share of workers in sectors affected by COVID-19, respectively. Flexible controls include municipality population shares of foreign-born and less than college educated interacted with month indicators. The health threat specification also includes the share of the population age 65 years and older and the party label of the mayor interacted with month indicators. *Group-specific linear trends* and *province-specific linear trends* correspond to the interaction between a continuous time measure and the municipality indicator of infection or unemployment exposure or province indicators, respectively. Municipality-clustered robust standard errors are reported in parentheses. *Average hate crimes* is the effective sample mean pre-COVID-19 hate crime rate in control municipalities, computed following Aronow and Samii (2016). Data are from Lunaria (2007 to March 2020), the 2011 Industry and Services Census, and ISTAT deaths counts for 2017–20.

[a] N observations = 1,253,594; N municipalities = 7,885.

[b] N observations = 1,259,477; N municipalities = 7,922.

* $p < .001$.

** $p < .01$.

*** $p < .05$.

and low exposure to death and unemployment before and after the first confirmed case of COVID-19 in Italy. Column 2 introduces municipality and month fixed effects, and column 3 flexibly controls for predetermined municipality-level variables. Given that not all of the pre-COVID-19 estimated treatment effects are exactly zero (although none is statistically significant as shown in fig. 2), column 4 adds group-specific linear trends to account for possible violations of the common trends assumption. In addition, figure B9 indicates that, in particular for unemployment exposure, the results are robust to accounting for such violation when we instead follow a more conservative approach by estimating the double DID estimator of Egami and Yamauchi (2022), as opposed to the standard DID estimator. Finally, column 5 introduces province-specific time trends to account for unobserved confounders at the province level that change over time and may affect hate crimes against Asians smoothly over time.

Starting with panel A, across all models specifications, we do not find evidence that variation in disease exposure can help explain the spatial distribution of hate crime in Italy in the months following the COVID-19 outbreak. Table B5 confirms these results when we instead estimate the effects on

hate crimes of exposure to deaths in February 2020, when the population was made more aware of the virus and its deadliness, compared to January 2020. The estimated null response to disease exposure is not explained by a larger decrease in the population's mobility in municipalities experiencing higher deaths, which would have limited more the rate of contact with the out-group and, therefore, the opportunities for hate crime in these areas. Figure B12, which uses data available at the province level from Pepe et al. (2020), shows that the decrease in mobility across areas with high and low exposure to COVID-related deaths is very similar.

By contrast, in panel B of table 1, while pre-COVID Asian hate crimes are similar across municipalities with high and low exposure to pandemic-related unemployment, after the first COVID-19 confirmed case, Asian hate crimes somewhat decrease in municipalities with low expected unemployment (although such decrease is not statistically significant), but they significantly increase in municipalities with high expected unemployment. The magnitude of such a relative increase is between 0.84 and 1.2 crimes per 10 million residents, depending on the model specification. This effect is equivalent to an increase of 795% relative to the average Asian hate crime rate in municipalities with low exposure to unemployment. This finding is consistent with the idea that the native-born react to economic grievances with hateful acts against a minority group associated with the origin of such grievances.[18]

Robustness checks

To ensure that the COVID-19-related unemployment findings are robust, we fit a series of alternative specifications. First, we control flexibly for the pre-COVID municipality's size of the East and Southeast Asian communities, to correct for potential bias from omitting this variable (table D1). Second, we show that effects are not driven by our choice to dichotomize our measure of expected unemployment at the median by using a continuous indicator (table D2) and by estimating treatment effects at different quartiles of the share of workers in affected economic sectors (fig. D1). Third, we account for potential time-varying endogenous municipality characteristics and for changes in the reporting of crimes across time, by restricting the analysis to a shorter time frame of one year (table D3).

Fourth, it is possible that the reporting of crimes, particularly from the Asian community, increased with the pandemic onset and, therefore, what we are capturing is not a surge in hate crime but an increase in the reporting of crimes. This is unlikely, given that Lunaria's reporting sources and data collection processes did not change after the virus's outbreak and that, to the best of our knowledge, there was not an Italian Stop Asian Hate movement empowering Asian communities to report crimes. Nevertheless, we assess this possibility by running a series of analyses that account for potential bias in the reporting of hate crimes around the onset of COVID-19 in cities with higher expected unemployment. We account for both selective increase in reporting and systematic location misattribution. All tests and results are presented in appendix E. Fifth, we rule out that the increase in hate crimes is a response to Chinese tourists perceived as spreading the virus in Italy (fig. D2). Finally, we alter the model's functional form to account for nonlinear models and to deal with excess zeros in the outcome variable (table D4). These checks and their results, which strengthen our confidence in the robustness of our findings, are described in appendix D.

In addition to these robustness checks, we test whether the hateful reaction to pandemic-related unemployment spills over to other migrant groups and find that it does not. Moreover, using an indicator variable of whether a municipality has at least one crime as the outcome, we show an increase in the number of municipalities experiencing hate crimes, in addition to an increase in the crime rate (the number of hate crimes per 10,000 residents). These analyses are in appendix F.

EXPLAINING RETALIATORY CRIMES AGAINST ASIANS

In line with threat theory, we argue that pandemic-related unemployment increased grievances perceived to be inflicted by Chinese-origin people. However, we recognize that hate-motivated behavior may not be reduced to economic frustration (Dancygier and Green 2010). In this section, we seek to advance an explanation for the link between hate crimes and the biased perception of Asian-origin people. Specifically, we evaluate whether hate crime is a response to the interaction between the economic environment and (*a*) the psychological attributes of potential perpetrators or (*b*) the institutional context in which perpetrators operate. Following Koopmans (1996), we begin by assuming that hate crime is an expression of a broader xenophobic social movement, and thus we rely on the theoretical insights from the literature on reactive mobilization as a response to threat (van Dyke and Soule 2002). We focus on three possible levels of reactive mobilization.

First, we consider whether the economic downturn increases the likelihood of hate crimes against a minority-immigrant group among those who are already explicitly prejudiced against members of that group. The idea is that negative cognitive and affective associations with stigmatized groups become activated

18. The conclusion of these main results holds when we include data from the months after the restriction on movement measures was imposed (table C1).

at the onset of a disrupting event involving that stigmatized group (Fiske 2002). If true, we should observe hate crimes manifesting in places characterized by high levels of exclusionary attitudes toward migrants.

Second, following Green et al. (1998), we examine the role local right-wing politicians may play in mobilizing hateful behavior. During economic crises, far-right parties often target minority groups to channel voters' discontent toward outgroups alleged to be responsible for voters' grievances (Mudde 2004). Consequently, members of those groups are framed as enemies and become legitimate targets of hateful acts. In addition, even in the absence of direct calls for violence against minority-immigrant groups, nativist politicians can indirectly legitimize such behavior via their positions toward immigrants (Jäckle and König 2017). Moreover, a government by a right-wing mayor may cause potential perpetrators to feel that they can act violently with impunity, especially in places such as Italy where mayors have influence over the police (Romarri 2020). Any of these channels can in turn embolden members of the dominant group to commit violent actions.

Third, we assess whether negative sentiment in the national public discourse encourages hateful behavior. The pandemic outbreak increased the salience of China in the media, attracting more attention toward Chinese-origin people. At the same time, pandemic-related grievances may be directed toward members of this group, finding their expression in hate speech. Given such increased salience in the media, more people may express bigoted views that in normal times are censured and may condone others for the same behavior (Bursztyn, Egorov, and Fiorin 2020). These dynamics can normalize hateful speech and reduce its social sanction, legitimizing or even encouraging hate crime (Müller and Schwarz 2020).

Measurement of individual predisposition to prejudice

In the absence of public opinion data at the municipal level and given that Google Trend searches (as in Müller and Schwarz 2020) are not reported in Italy below the provincial level, we assume that individual prejudice against minority-immigrant groups aligns with the political discourse and agenda of extreme right parties. Thus, following Fitzgerald, Leblang, and Teets (2014), we proxy prejudice using the municipal-level vote share for extreme-right parties in the 2018 national election.[19] We consider as extreme-right parties those that espouse nativism and an anti-immigrant agenda.[20] In the analysis, we define municipalities with relatively high predispositions to prejudice when their vote share for the extreme right in national elections is above the median.

Measurement of local political mobilization

We use an indicator of whether a municipality is governed by a far-right mayor. While municipalities with far-right mayors have more prejudiced individuals—they vote for the extreme right in national elections at higher rates, as shown in figure B10—municipal elections are generally less ideological and more about electing an effective executive. Conceptually, our measure of local political mobilization is distinct from the measure of individual predisposition to prejudice in that it captures the institutional context that legitimizes xenophobia and that may mobilize and (at least implicitly) condone its violent expression. Mayors have the means to articulate and legitimate local grievances as well as jurisdiction over the local police force, which may result in differential deterrence of hate crimes. We gather data on the local administrators from the Ministry of Interior's portal, Anagrafe degli Amministratori, and we focus on the serving mayor at the onset of COVID-19.[21] We consider mayors as far right if they run with a party or a coalition that includes only far-right parties or with a far-right civic list—a group of candidates not tied to any specific party with an extreme-right political orientation.

Measurement of national shift in social norms

We use all articles from 2018 to 2020 published by every Italian national newspaper (17 in total) to capture the climate of public discourse. We focus on articles mentioning China or Chinese people. As a reference group, we look at articles that mention Africa or Africans. The sample includes 17,500 articles, 42% about China. We identify anti-Chinese and anti-African articles with a sentiment classifier for the Italian language. Appendix J describes the classification procedure. To approximate the monthly sentiment of Italian discourse about Chinese-origin (African-origin) people, we use the extracted articles to compute a measure of anti-Chinese (anti-African) articles as a proportion of all Chinese (African) articles. We replicate this analysis using Twitter data from a random sample of 1% of all tweets in Italian from January 2018 to April 2020, including about 95,000 tweets, 35% mentioning China.

Results: Individual-, local-, and national-level mobilization

Figure 3 (*left side*) compares the COVID-19 unemployment effects across municipalities with low- and high-prejudiced

19. In app. I we use available survey data to support the validity of our measure as individual prejudice.

20. The variable includes the votes for Lega, Fratelli D'Italia, Casa Pound, Italia agli Italiani, Grande Nord, and Blocco Nazionale Per Le Liberta'. Election returns are from the Ministry of Interior Open Data portal (https://dait.interno.gov.it/elezioni/open-data/dati-elezioni-politiche-4-marzo-2018).

21. See https://dait.interno.gov.it/elezioni/anagrafe-amministratori.

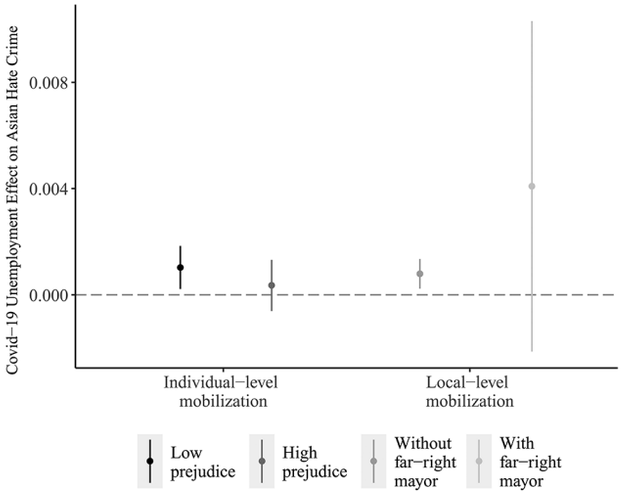

Figure 3. COVID-19 unemployment effects across municipalities with low and high prejudice and without and with far-right mayors. Points represent the estimated coefficients from a linear regression of Asian hate crimes per 10,000 residents on the interaction between an indicator for municipalities with an above the median share of workers in economic sectors affected by COVID-19 and an indicator for municipalities with high prejudice (individual-level mobilization) and municipalities with far-right mayors (local-level mobilization). The model includes month and municipality fixed effects, flexible controls, and group-specific and province-specific linear trends. Vertical lines are 95% confidence intervals. Data are from Lunaria, the 2011 census, and the Ministry of the Interior.

populations. We find that crimes against Asians increase more in municipalities with low prejudice, and while such an increase is statistically significant, it is not statistically distinguishable from the effect in municipalities with high-prejudiced individuals. This suggests that the observed increased hate crime in economically affected municipalities cannot be explained via the proposed individual mechanism. Simply having more individuals with dispositions to prejudice in economically affected municipalities does not correspond with a differential increase in hate crime.

Moving on to the local mobilization mechanism, the results presented in figure 3 (*right side*) suggest that economic frustration alone can result in hate-motivated behavior, as the estimated coefficient of the COVID-19 unemployment effect on hate crime in municipalities without far-right mayors is positive and statistically significant. However, the results also suggest that local political elites may be playing a mobilization role, enhancing the hatred response to economic distress. The estimated effect in municipalities led by far-right mayors is more than five times bigger the effect in municipalities without far-right mayors (although this effect is only statistically significant at the 10% level [$p = .07$] computed via randomization inference), and the p-value of the t-statistic testing for the equality of the two coefficients is .02, indicating that the two estimated coefficients are statistically distinguishable from each other.[22] This result is robust to flexibly controlling for vote share for the extreme right in national elections, confirming that this finding is independent and not driven by our measure of individual prejudice (table I3). Tables H1 and H2 present the estimated coefficients of the triple-differences models, which are depicted in figure 3.

We analyze all Facebook posts of a small sample of 40 mayors in February and March 2020, to explore whether political rhetoric on social media can account for the difference in the COVID-19 unemployment effects on Asian hate crimes across municipalities without and with far-right mayors. While the results are merely suggestive, we do not find evidence that far-right mayors used social media to broadcast hate-mongering political discourse to exploit the population's economic grievances. During these months, the information regarding China or Chinese people was neutral in tone, mostly about guidelines for people traveling back from China. It is possible, of course, that far-right mayors used other means to rally against Chinese people. As mentioned, the institutional environment in municipalities led by far-right mayors may also allow hate crime, particularly via the organizational bias of the police in failing to deter racist behavior and the fact that far-right politicians indirectly legitimize such behavior through their positions on immigrants and migration.

Finally, to assess the plausibility of a national shift in social norms, we look at the trends of national newspaper articles referring to Chinese-origin people. The patterns in figure 4*A* suggest that with the virus outbreak the salience of Chinese people in the public discourse increases; both the total number and the number of negative articles about people from China significantly increase, whereas as a reference, articles about people from African countries do not increase with the onset of COVID-19. Furthermore, a generalized fluctuation test on the trend of monthly negative articles about Chinese-origin people confirms a structural break due to COVID-19 (fig. B11). Not only are Chinese-origin people more salient in the public discourse at the onset of COVID-19, but also the pattern presented in figure 4*B* suggests that the attitudes toward them are more negative than in previous months: the negative articles' share trend peaks with the pandemic's outbreak. We replicate these findings using Twitter data in appendix J. In sum, we find evidence of a national public discourse shift against Chinese-origin people at the pandemic's onset. These findings suggest that increased hate crime is possibly explained as a response to bigoted community norms condoned by the national public discourse.

22. The number of municipalities led by far-right mayors is small, only 155 out of 7,922. Therefore, we compute these p-values via randomization inference.

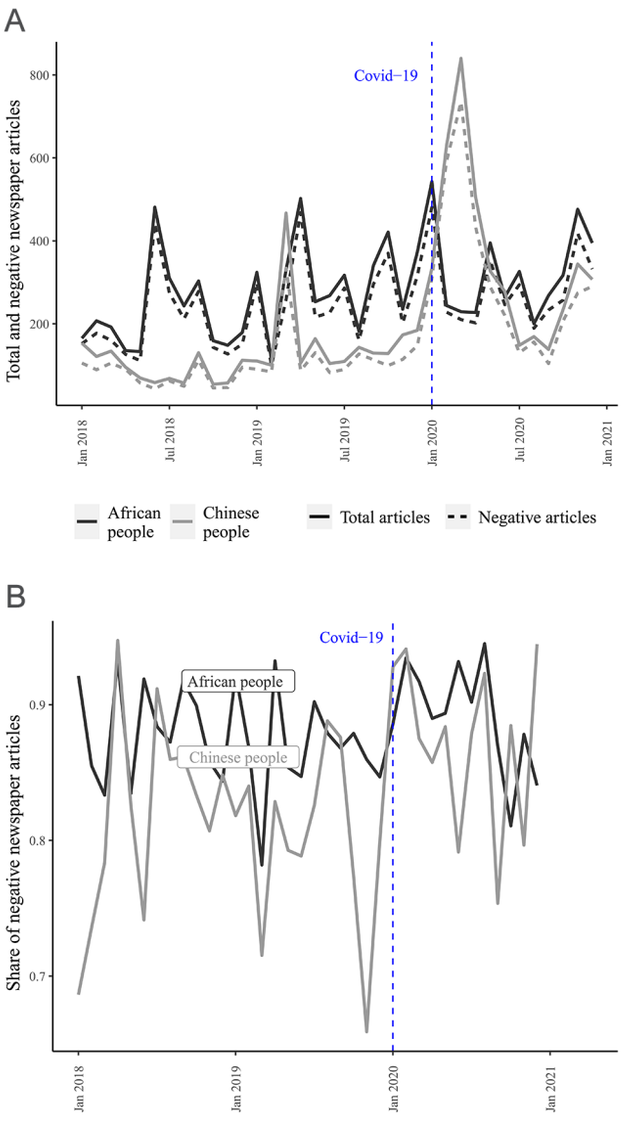

Figure 4. Italian public discourse trends about Chinese people. *A*, *Total articles* indicates the monthly number of newspaper articles about Chinese- or African-origin people, and *negative articles* represents the monthly number of negative newspaper articles about these two groups. *B*, Ratio of negative to total articles across the two groups. Articles are from the 17 Italian national newspapers.

CONCLUSION

Using the case of Italy, we show that COVID-19 caused a dramatic increase in the incidence of hate crimes against Asians but not against other migrant groups. Our study makes five unique contributions. First, we contribute to existing work on the relationship between pandemics and hateful behavior by treating the COVID-19 pandemic as a multifaceted crisis that has consequences beyond health outcomes and, thereby, demonstrating why the negative effect of the pandemic on hate crimes might be concentrated in areas that are not necessarily hardest hit from a health perspective. It could be the case that we find no effect of increased threat of infection because when the population is threatened with severe infection, the BIS is expected to be activated in almost everyone, regardless of localized level of threat. It is also possible that such a difference in response across economic and infection threats can be explained by the characteristics of the perpetrators of the crime, as it is more common that young individuals commit hate crimes (Craig 2002), and they are also more likely to be exposed to the negative ramifications of unemployment (Davis and Von Wachter 2011) rather than the health consequences of COVID-19.

Second, we advance the literature linking economic decline and hateful crimes. Past work has produced mixed results, in part because it generally used cross-sectional data (focusing on levels instead of change) and because it paid too little attention to causal inference (Green and Spry 2014) and to regression models' functional forms. Using 13 years of monthly panel data, we show that sudden dramatic economic downturn can trigger an increase in hate crime and that this result is robust to a variety of estimation strategies. We find that the reaction to structural economic conditions happens even in the absence of resource competition between the native-born and the migrant community, which leads us to advance the idea that job loss related to an economic shock can be scapegoated on an out-group. Moreover, our finding that differences in the reaction to unemployment are a function of local political context suggests that the local political environment can allow such scapegoating to occur.

Third, specifically with respect to COVID-19, we expand the study of the impact of the pandemic on Sinophobia both geographically and in scope. To date, most COVID-19 studies of Sinophobia consider the US context (e.g., Lu and Sheng 2020), where such behavior might be driven by context-specific political factors that do not necessarily generalize elsewhere; for example, an ultranationalist president with an explicitly anti-China agenda (Müller and Schwarz 2020) during an electoral year. Moreover, while several studies have shown that the onset of COVID-19 is associated with an increase in hate speech against Chinese, at least on Twitter (e.g., Schild et al. 2020), we further look at its effect on hate crimes, which are driven by a different data-generating process.

Fourth, we contribute to the growing literature on threatening events that can trigger increases in hateful behavior. Trigger events have been assumed to change the psychological disposition (e.g., threat perception) of potential offenders but not their environment (Disha, Cavendish, and King 2011). This may explain the exclusive focus on demonstrating a break from past trends, rather than variation in the spatial distribution of hateful behaviors in response to the triggering event (e.g., Hanes and Machin 2014; King and Sutton 2013). We

show instead that some situational trigger events can themselves alter a structural condition (e.g., unemployment rate) that can contribute to hateful behavior. When this happens, the implications are not merely an increase in hate crime *incidence*, but also a change in *where* hate crimes are more likely to occur. Moreover, while past work focused almost exclusively on terror attacks conducted by members of a minority or immigrant group, we focus instead on an extrasocial economic crisis.

Finally, we contribute to the literature studying the unequal impact of pandemics. COVID-19 had the largest negative effects on groups that were already worse off: women have been 24% more likely to permanently lose their jobs than men (Dang and Nguyen 2021). In the United States, people of color are more likely to die of COVID-19 and lose their job (Gould and Wilson 2020). Wealth inequality has increased across countries (Bottan, Hoffmann, and Vera-Cossio 2020), and poorer countries have limited access to vaccines. The increase in hateful behavior against immigrant groups we document is another case in which the pandemic disproportionately harmed minority groups.

We conclude that during a crisis causing economic grievance, ethnic minority and immigrant communities should receive better protection, especially in the most affected localities. However, we also acknowledge that protecting these communities may be challenging, particularly considering the evidence we find suggesting that local institutions controlled by far-right politicians can escalate hateful reactions to the crisis. Therefore, places where interventions to protect these communities are the most needed are also places where we can expect the government to favor them the least.

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