

Media Persuasion, Ethnic Hatred, And Mass Violence:

a Brief Overview of Recent Research Advances

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This chapter outlines the fundamental empirical challenges when studying media effects on conflict and discusses some recent methodological advances designed to overcome them. The evidence in this emerging literature indicates that mass media can be an effective tool for political elites to orchestrate mass violence. Both direct and indirect persuasion matter. The emerging evidence indicates that direct persuasion is stronger when propaganda targeting ethnic minorities is aligned with political predispositions of the ethnic majority, and indirect persuasion may occur from coordination of violence and from spillovers arising from social interactions.

12.1. INTRODUCTION

The study of modern-day mass killing is arguably incomplete without an account of whether and how mass persuasion plays a role. There are at least two key theoretical arguments for why mass persuasion is central to a deeper understanding of how mass killing comes about. First, for perpetrators' potential participation in, and execution of, mass killing, the calculus of their costs and benefits will be shaped by their beliefs, which in turn are formed, in part, by mass media exposure. *Direct persuasion* due to mass media exposure may increase hatred of, and violence against, perceived enemies. Just as

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marketing campaigns can convince people to buy products or services of a certain brand, and just as political campaigns can convince people that a certain political candidate is worth voting for, mass media, in principle, can convince people to participate in mass violence. Second, *indirect persuasion* may influence behavior even in the absence of direct exposure. For example, if mass media are able to shift social norms on what is deemed socially acceptable, or if they induce contagion—from those directly exposed to others—then mass persuasion may indirectly play a significant role in mass killing.¹

However, the *empirical* study of the effect of mass media on mass killing faces some nontrivial challenges. One key difficulty is to convincingly identify *causal* relationships, as a simple correlation between consumption of mass media and violent behavior can arise for many reasons unrelated to a genuine violence-inducing effect of media consumption. On the supply side, elites in control may target persuasion efforts toward audiences predisposed to violence. On the demand side, preexisting animosity toward certain groups in society may drive an interest in mass media that spreads further hatred and propaganda toward those groups. For example, after controlling for various demographic characteristics, data from predominantly Muslim countries suggests that exposure to CNN is associated with less anti-Americanism in Muslim countries, while exposure to Al-Jazeera is associated with higher levels of reported anti-Americanism (Gentzkow and Shapiro 2004). This may well reflect a true direct-persuasion effect of watching Al-Jazeera. But alternatively, and perhaps just as likely, it may simply reflect that people with a predisposition to anti-Americanism prefer to watch Al-Jazeera to begin with. Moreover, since the data seldom contain all the necessary variables one would need, the traditional “selection-on-observables” strategy—which, to determine the

outcomes under study, requires controls for all preexisting beliefs and preferences jointly correlated with media consumption—is vulnerable to various biases. Therefore, a statistically clean identification of causality that leaves little room for alternative explanations is the key to a deeper understanding of the role of mass persuasion in times of conflict.

The chapter proceeds as follows. Section 12.2 discusses recent methodological advances related to the study of media persuasion, addressing the fundamental empirical challenge just outlined.² Section 12.3 discusses emerging economic literature about media persuasion and conflict, and section 12.4 concludes.

12.2. EMPIRICAL CHALLENGES AND STRATEGIES

Studies of media persuasion date back to the 1940s, inspired by the seemingly effective mass persuasion campaigns organized by Joseph Goebbels in Nazi Germany in the 1930s. Perhaps surprisingly, these early studies, based on US data, did not find any profound media effects (Berelson, Lazarsfeld, and McPhee 1954; Lazarsfeld, Berelson, and Gaudet 1944). Concluding that media do not carry a significant independent influence on people's behavior, they do find that media strengthen people's predispositions. However, given the fundamental empirical challenge already outlined, it is unclear whether the estimates in these studies can be given a causal interpretation.

In contrast, recent economic studies of media effects are based on the idea of finding some source of exogenous variation in media exposure, or media content, to ensure that self-selection in media consumption or supply-side factors are not biasing the results in any direction. In this regard, the benchmark test for studying causal effects is through the conduct of field experiments, and the study of media is no exception. For

example, Gerber, Karlan, and Bergan (2009) offered a ten-week-long subscription, free of charge, to either the *Washington Post* or the *Washington Times* to randomly selected residents of the Washington, DC, area. They found that, as compared to a control group, residents assigned to receive the *Washington Post* were 8 percent more likely to vote for a Democratic candidate in an upcoming gubernatorial election.

Field experimentation is a great method for the study of media persuasion, but it is rarely used in practice. First, implementation difficulties preclude researchers from randomizing media exposure. Second, it is not ethical to conduct field experiments to study media persuasion in real-world circumstances if there is a risk that media might trigger ethnic violence or genocide. In these circumstances, researchers are forced to use quasi-experimental variation or natural experiments to study the effect of media on the behavior of interest. Relevant techniques include differences-in-differences studies, instrumental variable techniques, or regression discontinuity approaches. In the subsections that follow, we summarize a selection of recent papers that have employed such methods in order to establish credible causal effects.

12.2.1 The Differences-in-Differences Approach

The basic idea behind the differences-in-differences (DiD) approach is simple. While treatment group individuals who are exposed to mass media may share key demographic and political characteristics in ways that differ from those unexposed to mass media (the control group)—such as income levels or preexisting political beliefs—causality can be tested for if the selection of subjects into treatment or control groups is such that in the absence of exposure, the *difference* in outcomes would have remained the same over time on average. This assumption of parallel trends is the key to establishing causal effects, if

any exist. An example of this approach is DellaVigna and Kaplan (2007), who study the impact of Fox News on voting behavior in the United States. A central empirical challenge in their context was that conservative political leanings will drive the demand for Fox News, making it difficult to disentangle whether exposure truly shifts political views rather than simply reflecting preexisting views. To get around this problem, the authors based their strategy on the presumption that the initial rollout of Fox News was mostly determined by supply constraints of local cable companies, rather than by underlying trends in political preferences. The results show that Fox News significantly increased the vote share for George W. Bush with an estimated 0.5 percentage points. Placebo tests further showed that the availability of Fox News in 2000 was not correlated with preexisting voting trends for 1992–1996, indicating that unobservable trends in political views are unlikely to bias the results and that the parallel trends assumption was arguably reasonable.

12.2.2 Instrumental Variables Approaches and the Irregular Terrain Model

The basic idea behind the instrumental variables approach is that if a statistician can find one or more factors that drive media exposure but do not *directly* affect the outcome under study through any other channel, then a clean, causal estimate of the impact of media exposure is feasible. For example, within the context of a New Deal relief program implemented during the expansion period of AM radio in the United States, Strömberg (2004) studies whether the amount of federal redistributive spending via the Federal Emergency Relief Administration (FERA) increased when a larger share of voters

listened to radio—and thus were better informed about the existence of the federal program.

To deal with the problem that unobserved heterogeneity in demand-side factors (e.g., a general interest in politics) could *jointly* explain why some counties that received more funds are also those counties where radio listening happened to be popular, Strömberg exploits the fact that radio signal quality—and thus radio ownership—depended on geographic determinants of radio propagation, in particular ground conductivity and the proportion of woodland. Strömberg's idea was that since these geographic factors were unlikely to directly influence relief spending, they can be used as instrumental variables to establish causality. His main result shows that media indeed had a positive impact on spending, with a 1 percent increase in radio penetration in counties leading to 0.61 percent higher per-capita FERA spending.

A related approach, and one that has grown in popularity, is to measure the signal strength of radio or television directly, using the so-called Irregular Terrain Model (ITM) or some other algorithm for electromagnetic propagation. To our knowledge, Olken (2009) was the first to employ this strategy in his study of the impact of television and radio on social capital in Indonesia. It is based on a simple idea. Consider two villages: for one of them a hill blocks the line of sight (the signal line) between a transmitter and a receiver; for the other, there is no such hill and the transmission is unimpeded by geography. Except for signal availability, these villages could be similar in every other respect. The presence of the hill between transmitter and receiver introduces a quasi-random source of exogenous variation in media availability. This statistical approach is suitable in countries or regions with significant topographic variation and, when feasible,

is a powerful approach for identifying causal effects. Olken (2009) concludes that the availability of TV and radio indeed leads to less participation in social life and lower self-reported trust, but that it does not have any impact on the local quality of governance or corruption.

Enikolopov, Petrova, and Zhuravskaya (2011) also use ITM and certain idiosyncrasies of media resource allocation to study the effect of the presence of an independent TV channel on voting for Unity, the party that helped Vladimir Putin come to power in Russia. Specifically, they use the fact that prior to the 1999 Russian parliamentary elections approximately two-thirds of the population had access to only one independent TV channel. Put differently, in 1999 two-thirds of the population had access to both points of view (for and against Putin's party). But the remaining one-third had access only to one-sided media messages. The authors conclude that the independent TV channel increased the combined vote share for opposition parties by 6.3 percentage points and decreased the vote share for Putin's party by 8.9 percentage points. The findings were confirmed both by aggregate-level studies and individual-level surveys. Overall, Enikolopov, Petrova, and Zhuravskaya (2011) suggest that media effects in immature democracies can be larger than those in mature democracies.

12.2.3 Identifying Effects of Specific Media Content

A completely different approach exploits the fact that media outlets operate under constraints of limited space and time to deliver content that is deemed newsworthy. Whether a piece of news is reported or not—or is given prominent coverage—will depend, in part, on whether or not there is other newsworthy material. For example, Eisensee and Strömberg (2007) investigate whether media coverage of non-US natural

disasters increases the likelihood that US government disaster relief funds are disbursed. The empirical challenge in this context was that some disasters are inherently more likely to receive disaster relief for reasons other than media coverage—depending for example on their severity or the needs of the potential recipients—and these factors also drive whether the event is deemed newsworthy. To get around this problem, Eisensee and Strömberg (2007) exploit the timing of natural disasters, specifically whether or not they occurred during a major sports event (e.g., the Olympic Games), in which case news about the disaster tended to be crowded out. Since the timing and severity of natural disasters are unrelated to major sports events, news coverage is arguably as good as randomly assigned. With this creative empirical approach, the authors show that when there is less media coverage of natural disasters, substantially less humanitarian aid is allocated as a result. A similar approach was used by Durante and Zhuravskaya (2015) to show that Israeli attacks in the Israeli-Palestinian conflict are more likely to happen when voters in the United States are interested in other news (e.g., the Olympics or natural disasters). The results in the latter paper suggest that international media attention can explain the dynamics of conflict, at least in part.

An alternative approach to the study of media effects of particular content is used in Snyder and Strömberg (2010). The starting point for their study was the observation that political and media markets sometimes coincide, but in a “jagged” way. Specifically, their key variable of interest is overlap—or congruence—between media markets and US congressional districts, with the key observation that congressional districts change over time because of redistricting. Thus, the local press covers “its” US House representatives less intensely in some districts than in others for reasons unrelated to other determinants

of information, views, or political behavior. With this approach, Snyder and Strömberg's (2010) striking results show that a low degree of congruence (i.e., a low degree of overlap between media and political markets) causes lower levels of political knowledge in the population and lower turnout in local elections, and that politicians representing these communities work less for their constituencies. They also find that policy is affected: congressional districts with a larger share of population covered by out-of-state media markets have less federal spending per capita.

12.3. MEDIA PERSUASION IN CONFLICT ENVIRONMENTS: EMPIRICAL EVIDENCE

The examples of empirical strategies mentioned in section 12.2 highlight how recent methodological advances have deepened our understanding of the role of media and media persuasion. However, these examples mostly cover nonconflict environments, and mostly in relatively advanced democracies. Much less is known as to whether mass media is a powerful tool in situations of intrastate and interstate mass violence, and how political elites may exploit persuasion methods to achieve political goals. Little is known, too, about mechanisms, for example in regard to the role of a population's political predispositions or how social interaction comes into play. In what follows we describe some recent empirical evidence toward this end.

12.3.1 Persuasion as a Precursor to Hatred and Mass Violence

Yanagizawa-Drott (2014) studies the impact of propaganda during the 1994 Rwandan genocide, where an estimated 800,000 civilians—primarily of the Tutsi minority—were killed during a period lasting little more than three months. He investigates the government-backed radio station Radio Télévision Libre des Mille Collines (RTL) that

led propaganda efforts to spread hate against the Tutsi minority population, encouraging—even mandating—the Hutu majority population to kill Tutsi.

Hutu extremists set up the radio station less than one year before the genocide broke out in April 1994. (President Habyarimana was assassinated by unknown forces on April 6 that year.) Using a talk-show format, mixed with contemporary music, RTLM quickly became very popular. Shortly after the genocide was under way, Hutu extremists managed to seize power, and the radio station became the main mass-media tool for delivering messages to the population. Most importantly, RTLM called for the extermination of the Tutsi ethnic group, claiming that preemptive violence against it was necessary for “self-defense.” Based on its inflammatory content, it is clear that a key goal was to induce ethnic hatred and violence against Tutsi. In fact, after the genocide, the International Criminal Tribunal for Rwanda convicted the station founders for having instigated genocide.

The station used propaganda techniques familiar from other contexts, spreading fear and using dehumanizing language to describe Tutsi, often referring to them as “cockroaches.” It painted a picture of Tutsi as constituting a political threat against Hutu, and that all Tutsi should be considered part of a conspiracy against Hutu. The political and institutional backdrop arguably played a role in shaping the political messages and their perceived credibility. Tutsi had dominated political life in precolonial times, ethnic clashes had occurred multiple times after independence, and the country had recently experienced a civil war from 1990 to 1993 that had begun after a Tutsi rebel group led by Paul Kagame invaded the country from Uganda (see chapter 15 in this volume). Put simply, RTLM’s message to the Hutu population was “kill or be killed.” Importantly, this

message carried a dual meaning. First, it called for preemptive violence against Tutsi as a matter of self-defense. Killing Tutsi was an imperative. Second, and perhaps just as important, it made clear that dissent carried significant risks and Hutu themselves would be considered traitors if they did not partake in the efforts to exterminate the Tutsi minority. This risk was real, as government forces and Hutu extremists did in fact kill thousands of moderate Hutu during the genocide.

In his paper, Yanagizawa-Drott (2014) hypothesizes that listening to the station could have affected violence via two broad mechanisms, direct and indirect persuasion. First, *direct persuasion* means that some marginal listeners could have been convinced that participation in attacks on Tutsi was preferable to nonparticipation. This mechanism is plausible given that the broadcasts contained not only strong anti-Tutsi rhetoric that may have increased hatred but also information about relevant tradeoffs: they made it clear that the government would not punish participation in the killing of Tutsi citizens, but instead mandated such behavior. Second, following a long tradition in the study of mass media, starting with Lazarsfeld, Berelson, and Gaudet (1944) and Katz and Lazarsfeld (1955), social interactions could have played a crucial role. In particular, a direct persuasion effect could coexist or be reinforced with *indirect persuasion*. For example, one would expect this to be the case if violence begets violence, leading to contagion. (On identity, social groupings, and contagion, also see chapters 21 and 22 in this volume.) Toward this end, Yanagizawa-Drott (2014) notes a key element of radio broadcasts: they are public. Everybody who listens knows that all the other listeners receive the self-same messages. What everybody else is believed to think, and the likelihood that they might support the violence and actively participate in it, then is likely

to shape any given listener's perceived costs and benefits and willingness to join (or not) in the attacks. Yanagizawa-Drott (2014) outlines a simple model of strategic complementarities in violence where, in addition to any direct persuasion effects, public broadcasts play a role in coordinating violence. (On strategic complementarities, also see chapter 19 in this volume.) The model shows that by functioning as a coordination device, propaganda can exhibit strong nonlinearities—scale effects—in the share of the population receiving the messages. A given increase in listeners will have miniscule effects when a small share of the population listens, but large effects arise once a critical mass do.

To test the hypothesis that the broadcasts fueled violence, Yanagizawa-Drott (2014) used village-level data on participation in violence based on prosecutions in local courts, together with measures of radio reception in villages using a version of the ITM propagation model. To establish causality, he exploits the geographic scattering of hills and valleys throughout Rwanda, making local variation in radio reception essentially as good as if they had been randomly assigned. The main results show that RTLM's hate messages increased participation in the violence, both in terms of local militia violence as well as participation by ordinary citizens. The effects are significantly weaker in areas with higher primary education levels and literacy rates, indicating that investments in education may mitigate people's susceptibility to inflammatory propaganda in times of conflict. One explanation for these heterogeneous effects could be that education increases interethnic tolerance, decreasing anti-Tutsi predispositions among the more educated Hutu. While the data do not allow the author to test this specific mechanism directly, it is consistent with Adena et al. (2005), who do have data to test for the role of

predisposition in the context of Nazi propaganda (see below). Interestingly, for Rwanda the data provide evidence of strategic complementarities in militia violence, as the results shows both scale effects within villages and spillover effects to nearby villages.

Reception in any given village increased militia violence not only in that village but also in nearby villages. In fact, the spillovers had a greater aggregate effect on militia violence than did the direct effects of radio signal reception. This result indicates that one channel by which mass media can amplify mass violence is through coordination and the triggering of contagion. Thus, both direct and indirect persuasion seem to have mattered. When assessing the countrywide impact of RTLM on the overall level of violence, the estimates suggest that approximately 10 percent of participation in the genocide can be attributed to RTLM broadcasts.

Adena et al. (2005) study the impact of German radio before and after the Nazi Party's electoral victory in 1933. By combining panel ITM-based data on radio signal availability with data on large changes in radio content and various placebo tests for earlier outcomes, they document several findings. First, they show that radio content changed in 1929, when radio stopped being apolitical, and in 1933, when radio content started to be heavily supportive of Nazism. This contrasted to limited Nazi access to radio before. For example, during 1925 to 1932, representatives of the Nazi Party, the National Socialist German Workers' Party (Nationalsozialistische Deutsche Arbeiterpartei (help·info), abbreviated NSDAP), spoke only four times on radio, and Adolf Hitler was not given a floor. In contrast, in February 1933 alone, he spoke sixteen times on radio, and the total number of appearances of Nazi politicians during that month was twenty-eight. Anti-Semitism was a recurrent theme in radio broadcasts in 1933 and later on as

well, from 1937 onward. The authors find that for 1930 to 1932, the places with radio access were less likely to vote for the NSDAP or Nazi-supporting candidates. Gaining influence over, and eventual control of, radio thus was an important aspect of Nazi Germany. Whether this result suggests that limiting extremist speech may potentially prevent a popular dictator from gaining public support is another matter (briefly discussed in section 12.4).

Second, Adena et al. (2005) find that after Hitler was appointed chancellor, exposure to radio had a positive effect on different indicators of Nazi support, such as voting for Nazis, joining the Nazi Party, or instances of anti-Jewish discrimination.

Third, the paper investigates how German radio affected anti-Jewish violence in the late 1930s. Specifically, it looks at three types of outcomes: deportations of Jews, anti-Jewish letters to *Der Stürmer* (a prominent Nazi newspaper), and synagogue destruction during the Night of Broken Glass (*Kristallnacht*). The basic finding is that places with radio access then experienced more deportations and anti-Jewish letters. But an important heterogeneity in these results is that these effects crucially depended upon people's *predisposition* to Nazi messages. Specifically, the measured effects are stronger in locations in which people were historically predisposed toward welcoming Nazi messages. Predisposition is measured by historical anti-Semitism since the fourteenth century, by early (1924) votes for nationalistic parties, or by historical land inequality. The paper also demonstrates that propaganda could backfire in places with higher levels of tolerance (that is, without the history of Jewish pogroms in the fourteenth century or with historically low degrees of inequality) and with less anti-Jewish violence in locations with radio access but with *negative* predispositions toward Nazi messages.

In sum, there are two main lessons from the Adena et al. (2005) paper. First, in a politically volatile environment, who controls mass media is important, as is whether there are restrictions on extremist speech in place. Second, the persuasive power of radio propaganda depends on people's predispositions toward media messages—receptive or not. It appears that effective media campaigns need already fertile ground for media persuasion to work. Media perhaps amplify feelings more than they generate them in the first place.

Finally, the evidence by Yanagizawa-Drott (2014) and by Adena et al. (2005) may also be relevant for policy debates on placing restrictions on mass media and on how to prevent mass atrocities such as genocides. Restrictions placed on mass media are often pitched against the values of freedom of speech and expression. External intervention, and the responsibility by the international community to protect civilians from repression by their own governments, is commonly pitched against the respect for state sovereignty. The international debate during the Rwandan genocide is illustrative in this regard. Leading up to the genocide, the United Nations force commander for the peacekeeping intervention had urged the international community to jam RTLM signals. He had repeatedly asked for the capability to jam RTLM, but the request was denied. Arguments against the measure were that it would violate Rwanda's state sovereignty and impinge on the fundamental human rights to free speech and free press. Also, the United States government had estimated that jamming the station would be costly, approximately USD four million in total. Since, at the time, no robust historical evidence existed that such broadcasts could cause hatred and violence, the monetary, legal, and political costs of

jamming RTLM were not counterbalanced by any clear benefits. The evidence by Yanagizawa-Drott (2014) and by Adena et al. (2005) arguably tilts this policy calculus.

12.3.2 Postconflict Persuasion

DellaVigna et al. (2014) use a combination of methods to study the impact of foreign radio on postwar nationalism and reconciliation: How do mass media affect postwar beliefs and behavior? Their case is the Serbo-Croatian war, the deadliest military conflict in Europe since World War II. Its atrocities against civilians are characterized as genocide by Easterly, Gatti, and Kurlat (2006). In the 2000s, Serbian public radio still carried nationalistic, anti-Croatian content. The study by DellaVigna et al. (2014) establishes several facts. First, according to survey data, many ethnic Croats listened to Serbian radio despite it being hostile to them; second, in places where Serbian radio was available in the 2000s, people were more likely to vote for extreme nationalist parties and more likely to draw nationalistic graffiti; and, third, Croatian subjects in a field-based laboratory experiment exhibited more anti-Serbian sentiment after listening to ten minutes of Serbian radio. The laboratory experiment in particular sheds light on the mechanism, as even neutral (not nationalistic) Serbian radio increased anti-Serbian attitudes of the subjects, and, probably, Serbian radio served as a reminder about the war and the atrocities just a decade before.

This evidence indicates that radio aimed at inducing ethnic animosity and violence can be exploited by political elites.³ And it begs the question of whether mass media can be used for more benevolent goals, such as the fostering of interethnic tolerance, trust, or cooperative behavior. Paluck (2009) and Paluck and Green (2009) study the impact of a reconciliation radio soap opera in postgenocide Rwanda that

featured messages about reducing intergroup prejudice, violence, and trauma. Over the course of one year, communities were randomly assigned to receive broadcasts of either the reconciliation soap opera or a control soap opera (aimed at health education), where group listening took place in public spaces. Results from this experiment show that the reconciliation program had a positive effect on social norms, such as a higher acceptance of intermarriage across ethnic and religious groups; that it increased listeners' willingness to express dissent; and that communal problem-solving improved. Although it remains an open question whether content like these soap operas can reduce ethnic violence, at the very least these results indicate that persuasion can work to influence mechanisms that presumably affect the ability of political elites to orchestrate mass violence.

12. 4. CONCLUSIONS

This chapter provides an overview, if brief, of recent empirical literature on the role of mass media in influencing political outcomes, with a focus on studies of mass media effects before, during, and after mass killings. The chapter does not aim to provide an overview of all recent literature on mass media effects, but rather to selectively showcase techniques used by economists in recent years to identify such effects in general, if any, and to illustrate more specifically how these techniques are used in studies of mass media effects on mass violence and postwar reconciliation.

The empirical bottom line is that mass media can play an important role in the organization of mass killing, but this is not the only lesson. When propaganda is aligned with population predispositions, persuasion appears especially effective. Both Yanagizawa-Drott (2014) and Adena et al. (2005) suggest that community-level beliefs and behaviors are important for propaganda affecting individual participation in

genocide. But Adena et al. (2005) also find that propaganda can backfire. Beyond direct persuasion, the evidence from Rwanda is consistent with data showing that the mass media functioned as a coordination device for violence and that spillover effects from social interactions were nontrivial. Overall, this emerging literature points to common beliefs in society—preexisting or induced by media exposure—being important prerequisites to mass killing. That said, more evidence is clearly desirable to establish the generalizability of these results and to arrive at a deeper understanding of the specific mechanisms driving them.

This chapter does not discuss new forms of media that spread information and beliefs such as social media and cell phones/smartphones. It is an open question, at least statistically, whether governments or rebel groups can use these new technologies to ignite, fuel, and coordinate violent behavior. Some suggestive evidence exists, however. Pierskalla and Hollenbach (2013) use new disaggregated and geocoded data on violent conflict and find evidence consistent with cell-phone coverage increasing violence in Africa. Two recent papers on the effects of social media on coordinating political protests also suggest a coordination role for organized violence. Acemoglu, Hassan, and Tahoun (2015) show that Twitter activity predicted spikes in participation in the Tahrir Square protests in Egypt in 2011; and Enikolopov, Makarin, and Petrova (2015) find that social media penetration led to a greater incidence of protests, and higher protest participation, in Russia in 2011–2012. More research is clearly desirable here as well.

What policy conclusions, if any, can one draw from this sophisticated statistical research? Probably the main message is that simply turning a blind eye toward autocratic regimes that freely disseminate inflammatory messages targeting ethnic minorities can

and does allow them to fuel hatred and violence, ultimately leading to significant human suffering. It is good to be able to empirically demonstrate the existence of such effects. There is also some suggestive evidence that restrictions on extremist speech may possibly help to prevent dictators from coming to power in the first place. Such evidence strengthens arguments for prevention and external intervention, at least at the margin. Finally, to our knowledge there is no available evidence on whether and how mass media can be used benevolently—as a tool to *prevent* mass killing. Mass media effects may or may not act symmetrically. Research shedding light on this issue is highly desirable.

NOTES

¹ The hypothesis that social interaction provides an indirect channel for persuasion effects on behavior dates back to the two-step flow communication model by Lazarsfeld, Berelson, and Gaudet (1944) and Katz and Lazarsfeld (1955).

² The aim of this chapter is not to provide a complete survey of the literature. We focus on references within economics. For a more extensive survey, see DellaVigna and Gentzkow (2010) or Prat and Strömberg (2013).

³ Fergusson, Vargas, and Vela (2013) use a regression discontinuity design to study the impact of newspaper scandals on electoral coercion in paramilitary-controlled areas in Colombia. Specifically, they found that electoral coercion was more likely to happen after candidates, sympathetic to paramilitary groups, were threatened to lose elections after corruption scandals about their behavior got into the news. While their results do not speak directly to media effects during and after mass killings, they highlight an important potential mechanism to trigger violent events.

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