The Diffusion of Ethnic Violence in Germany: The Role of Social Similarity

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In this article we develop and test an encompassing theoretical framework for explaining the geographical and temporal spread of extreme right violence. This framework combines structural factors related to ethnic competition, social disintegration, and political opportunity structures, which make certain localities more prone to exhibit ethnic violence, with diffusion variables that determine the degree to which ethnic violence diffuses across time and across localities. We employ an event history analysis of instances of racist violence in 444 German counties for the time period 1990–1995. In line with previous research we demonstrate that political opportunities, ethnic competition and social disorganization, media coverage, and the severity of previous violence are significant explanatory factors in the evolution of xenophobic violence. We further find that geographical distance does not affect the diffusion of ethnic violence when controlling for social similarity, which strongly raises the probability of diffusion across localities. This indicates that the effect of geographical distance that is found in many diffusion studies may actually be caused not by geographical proximity as such, but by the fact that proximate areas tend to be socially similar.

Introduction

Following its reunification Germany witnessed a strong upsurge in extreme right violence targeting asylum seekers and other immigrant groups, peaking in 1992 and leveling off during the subsequent years (see Figure 1). This wave of violence resulted in up to a hundred casualties, thousands of injuries, and extensive material damage (Kurthen, Bergmann and Erb, 1997). In this article we provide a systematic analysis of factors that can account for this wave of xenophobic violence. Our framework combines structural factors related to ethnic competition, social disintegration, and political opportunity structures, which make certain localities more prone to exhibit ethnic violence, with diffusion variables that determine the degree to which ethnic violence diffuses across time and space.

Our approach not only brings together several strands of research, but also adds a major of refinement where the determinants of diffusion are concerned. Diffusion studies on mobilization have shown that geographical distance matters (e.g. Gould, 1991; Hedstrom, 1994; Myers, 2000; Andrews and Biggs, 2006). Most of these studies consider geographical distance to be a proxy for a social relationship. But as Tarde ([1890] 1921) remarked long ago, geographical distance as such is not socially relevant; what matters is distance in the sociological sense. Few diffusion studies of protest in general, or of ethnic violence in particular, have however tried to measure social distance (or ‘homophily’ as it is also known in the diffusion literature) directly. Studies that do examine social similarity (Soule, 1997) do not take into account geographical distance. In this article, we show that...
when we include political, socioeconomic, and demographic measures of homophily, geographical distance no longer matters, providing strong support for social similarity arguments and urging reconsideration of geographical diffusion effects. We combine this homophily perspective on diffusion with insights from recent work that has shown that media attention creates ‘discursive opportunities’ that facilitate the diffusion of protest. In line with earlier studies, we show that media visibility of events as well as negative statements about immigrants and asylum seekers in the public debate increase diffusion rates.

We further provide strong evidence for the conjuncture that the level of xenophobic violence is lower where right-wing parties are strong and to some extent find supporting evidence for ethnic competition (Olzak, 1986) and social disorganization theories of ethnic violence (Heitmeyer et al., 1992).

Our findings are based on an analysis of data on xenophobic violence in Germany in the period 1990–1995. We methodologically improve over earlier studies on this topic in several ways. First, we combine two independently gathered datasets, one based on a detailed coding of a single national newspaper (see Koopmans, 2001) and another based on a more extensive search of a wide range of media sources (Francisco, 1996). Second, we analyze the data on a much more detailed level of analysis than previous studies. First, we employ event history analysis and therefore use information on the exact timing of events, in contrast to earlier studies, which have aggregated events to months (e.g. Brosius and Esser, 1995; Koopmans, 2001) or years (Koopmans and Olzak, 2004). Second, whereas earlier studies were conducted only on the national level or across the sixteen German federal states, we use the most fine-grained administrative unit for which statistical data are available in Germany, the Kreis (roughly comparable to a US county), allowing us to compare and analyze diffusion across more than 400 geographical units. We use a more fine-grained operationalization of social homophily across geographical units than any study of protest diffusion that we are aware of, which is based on pair-wise calculations of differences regarding the demographic, political, and socioeconomic characteristics of Kreise.

**Diffusion Theories**

Diffusion theories emphasize that decisions to engage in ethnic violence are not taken in local isolation, but are often based on imitation (for an overview, see Strang and Soule, 1998). As a result, ethnic violence, like other forms of protest (McAdam, 1982), often occurs in waves that diffuse rapidly across local and sometimes also national boundaries, as activists imitate
the examples of like-minded activists in other localities (Biggs, 2003; Oliver and Myers, 2003). In emphasizing imitation, diffusion theories of ethnic violence build on the more general literature on the diffusion of innovations (Soule, 2004).

According to Rogers' influential definition, diffusion is “the process by which an innovation is communicated through certain channels over time among the members of a social system” (Rogers, 1995, p. 5). A core finding from the diffusion literature regarding the determinants of diffusion is the importance of “homophily” between sources and adopters, which Rogers defines as “the degree to which two or more individuals who interact are similar in certain attributes, such as beliefs, education, social status, and the like” (1995, p. 18–19). Tarde similarly observed: “In fact, it is as a direct result of the distance to the model, and not just of its superiority, that the latter’s influence is effective. Distance is to be understood here in the sociological sense of the word” ([1890] 1921, p. 243; emphasis in the original, our translation from the French). Why homophily between model and adopter should increase rates of diffusion is easily understood. Because of the similarity between the two, innovations that are used by a homophilous model are more likely to also be useful and relevant for the potential adopter. Conversely, the experiences of a model that is very different from the potential adopter are not necessarily useful and relevant for the adopter. Similarity between models and adopters has also been shown to affect the diffusion of protest tactics. Soule’s (1997) investigation of the proliferation of an innovative demonstrative tactic, the sit-in, across university campuses indicates that the protest innovation spread most rapidly between university movements that shared structural characteristics, such as endowment size and prestige.

Another key finding from diffusion studies relates to what Rogers calls “selective exposure”: “Individuals tend to expose themselves to ideas that are in accordance with their interests, needs, and existing attitudes. Individuals consciously or unconsciously avoid messages that are in conflict with their predispositions” (1995, p. 164). This mechanism provides an additional reason why people are more likely to adopt information from people who are similar to themselves. However, people are not only selectively exposed to certain examples because these fit their own biases and predispositions, but also because people nowadays increasingly depend on the mass media to obtain information, and are therefore exposed to prominent coverage about some events, and may not learn anything about many other events.

Recently social movement scholars have conceptualized the mass media as a “discursive opportunity structure” (Koopmans and Statham, 1999; Ferree et al., 2002; McCammon et al., 2007). Koopmans and Olzak (2004) distinguish between several types of discursive opportunities, of which visibility and consonance are the most relevant for this study. The concept of visibility is based on the notion that the degree to which acts of collective violence get covered by the media, in other words are visible, determines the extent to which other people can take notice of them, and subsequently affects the likelihood that they spread from one place to another.

The mass media do not only transmit bare information about the actual occurrence of previous instances of violence but also indicate how these incidents “tap into a hegemonic discourse” (McCammon et al., 2007), i.e. the extent to which acts are considered legitimate, sensible, and realistic by society at large (Koopmans and Statham, 1999). The more previous violence turns out to be consonant with discursive structures, the more potential adopters will be prepared to expose themselves to information about violence and the more violence will spread from one location to another. Selective exposure is also contingent on event characteristics. As Myers (2000) demonstrates, severe riots are more contagious and influential than smaller ones since they attract more media attention.

**Local Conditions**

In addition to these conjunctures about diffusion we also investigate how structural characteristics affect the rate of extreme right violence. An important strand of research has emphasized ‘ethnic competition’, the struggle between ethnic groups over scarce resources, most importantly jobs (Park, 1950). The main idea underlying this work is that rigid group boundaries that follow from ethnic competition are a necessary condition for the occurrence of collective action along ethnic lines. Ethnic competition theorists have mainly focused on labour market competition, holding that economic contraction and the presence of immigrants spark violent mobilization of ethnic groups. In this view, ethnic violence is most likely to occur where both ethnic immigration and unemployment rates are high (e.g. Bélanger and Pinard, 1991; Olzak, 1992; Nagel, 1996; Olzak and Shanahan, 1996).

Disorganization theorists on the other hand state that collective violence is a product of malintegration of society. In line with the classical work of Durkheim,
it is argued that the absence of social ties in combination with organizational dissolution and deteriorating solidarity increase the propensity for citizens to get engaged in collective violence (Oberschall, 1973).

A third strand of theory treats ethnic violence as part of a wider political process and emphasizes political opportunity structure variables such as the party-political power configuration (e.g. McAdam, 1982; Tarrow, 1994). The basic idea is that the degree to, and forms in which social-structural developments translate into political mobilization depends on the opportunities and constraints offered by the political environment. Some applications of political opportunity structure posit a rather simple—and empirically as well as theoretically contestable, see Goodwin and Jasper (1999)—relation between ‘open’ opportunities and high levels of mobilization of social movements. We follow the more differentiated approach of Kriesi et al. (1995), who show that the effects of political opportunity structures depend on the forms of mobilization one looks at: institutional forms such as organizational membership and electoral mobilization, or extraparliamentary protest (see also Koopmans’ (1999) reply to the Goodwin and Jasper critique). Kriesi et al. (1995, p. 45) showed that levels of extraparliamentary mobilization, and in particular of violence, were highest in France and Germany, where new social movement organizations were weaker and their opportunities for institutional access were more limited. Several studies show that a similar relationship holds for the extraparliamentary radical right, which tends to mobilize most in countries where extreme right parties are weak (e.g. Koopmans, 1996; Giugni et al., 2005). More generally, we expect that a strong representation of the anti-immigrant agenda of the extreme right in the parliamentary arena will dampen the rate of extreme right violence over time correctly. The high correlation of 0.82 between the two sources gives us confidence that our data indeed grasp changes in extreme right violence.\textsuperscript{2}

The definitive analysis therefore included 687 events that took place in 220 of the 444 Kreise. Since the analysis solely relies on newspaper data one must be aware of the problem of selection bias that affects this type of data. Therefore the integrated file’s yearly aggregates were correlated with official police statistics obtained from the Bundesamt für Verfassungsschutz to see whether our data indeed grasp changes in extreme right violence. The high correlation of 0.82 between the two sources gives us confidence that our data reflect real fluctuations in xenophobic violence.\textsuperscript{2}

We employ event history models, focusing on the duration of time between violent events in each of the individual counties. We prefer this type of analysis above time series designs based on aggregate data since it enables us to exploit all available information on the exact dates of violent events. We start our analysis on 1 January 1990 and end on 31 December 1995. This end date was chosen because the Francisco data set only runs until the end of 1995, but it also makes sense from an empirical perspective. Our data (Figure 1), as well as police statistics and historical

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**Data and Dependent Variable**

To explore the effect of structural characteristics and diffusion on racist violence we analyze data from 1990 to 1995 for all 444 German counties (Kreise). We track all instances of xenophobic violence that were reported in two independently collected datasets. The first one was collected as part of a large project covering European protest and coercion in 28 European countries (Francisco, 1996; Reising, 1999; European Protest and Coercion Data, 2007). The data were collected from the Reuters textline library, which can be accessed through LEXIS NEXIS. The Reuters textline library covers over 400 international, national and regional wire services, newspapers, and magazines. For each instance of contention, the date, geographical location, number of arrests, number of participants, initiating group and target were coded. This dataset includes a total of 253 violent incidents targeting foreigners in Germany for the time period 1990–1995. The second file utilized in this article was collected in the context of the MERCI project (Koopmans et al., 2005). The MERCI file contains violent incidents and other strategic political actions in the political field of immigration and integration. The data were manually coded from Monday, Wednesday, and Friday issues of the national newspaper Frankfurter Rundschau. This database includes the date, geographic location, deaths, arrests, targets, and numbers of participants of 531 instances of anti-foreigner violence for the time period 1990–1995. Monthly aggregates of both files correlated highly (0.91) indicating the comparability and reliability of the measurements. After integration of the files, 61 doublings, i.e. violent incidents covered both in the Francisco and the MERCI file were merged. Another 36 events in the integrated file occurred in the same Kreis on the same day. These so-called tied events were also merged into one event since the sequence models employed in this article cannot handle durations of 0.\textsuperscript{1}
records (Kurthen, Bergmann and Erb, 1997) indicate that the wave of extreme right violence in Germany had subsided by the beginning of 1996. In total we analyze 1,131 subjects: 687 that end in racist violence and 444 spells that are right censored.

**Method of Analysis**

We use partial likelihood estimation as developed by Cox (Cox and Oakes, 1984). Cox regression, as opposed to other event history techniques; has the advantage that one does not need to specify the baseline hazard. Although some tools are available in current statistical packages to evaluate the parameterization of the baseline hazard, final choices for a parametric model should always be based on strong theoretical assumptions (Blossfeld and Rohwer, 2002), which are not always present in current social inquiry (but see Olzak, 1992).3

However, in specifying a Cox model two considerations should be taken into account. First of all it posits that variables included in the model shift the baseline hazard multiplicatively and that these shifts are constant over time: the proportional hazard assumption. This assumption can be tested by means of a Schoenfeld residual test. Schoenfeld residuals can be retrieved for each covariate by calculating the difference between the covariate value for a failed observation and the mean covariate value of all subjects at risk when the failure took place. Accordingly one has to fit a function of time to them and test whether there is a relationship. If the slope of the time effect does not significantly differ from zero, the proportional hazards assumption is met (Gould and Cleves, 2004). Inspection of the Schoenfeld residuals indicated that the proportional hazard assumption of our models was not significantly violated.

Second, the baseline hazard for event occurrence might vary across entities facing different structural settings. In light of this study it is likely that the baseline hazard varies between East and West Germany since so short after Germany’s unification there was a high degree of social and economic divergence between the two regions. According to Heitmeyer (1993) it would not go too far to view East and West Germany as two completely separate societies only connected by institutional processes. Whether the xenophobic mobilization studied in this article indeed took place in two completely different social settings can be checked by inspecting how the hazard of xenophobic violence evolved over time in the two regions separately. The estimated cumulative baseline hazard functions for East and West Germany show that xenophobic violence indeed evolved differently in both regions. Therefore we have stratified all observations by East/West region. Stratified models allow the baseline hazard to vary over groups but at the same time estimate coefficients that are constrained to be homogeneous and therefore allow for the inference of general causal relations for both regions. As a robustness check, we have also estimated a non-stratified model with an East–West dummy. Results were very similar. In addition, we estimated separate models for Kreise in East and West Germany. These models were also largely consistent with the ones presented below.4

In our analysis 130 counties experienced more than one instance of racist violence. Therefore our models are susceptible to unobserved heterogeneity leading to a downward bias in standard errors. We follow Myers (1997, 2000) in solving this problem by including a variable that taps the history of racist violence for every county by counting the number of prior violent events that occurred. Since we also include variables that show more over time than geographical variation, such as the severity and visibility of previous violence, our observations are also nested in time points. We therefore estimate standard errors without assuming that Kreise measured on the same day are independent from each other by using the cluster option in STATA.5

**Independent Variables**

For all independent variables multicollinearity statistics were inspected that did not indicate problems. We begin with the description of the diffusion variables, which, except for the media and severity measures, vary for each Kreis-day combination.

**General Diffusion**

This variable counts the number of previous violent events that took place in all the other 443 municipalities. We experimented with several specifications and opted for a period of 7 days. This is in line with earlier findings of ethnic violence in the United States (Myers, 1997). We did not include a time-decaying element as proposed by Myers (2000) since this complicates the interpretation of the coefficient. We expect a general positive effect between violence in other Kreise on the violence hazard.6

**Geographical Proximity**

Distances between Kreise were calculated by means of the Great circle distance method (Byers, 2002).
We used the inversed distance score of the most nearby Kreis in which a violent racist attack took place in the preceding 7 days to grasp the effect of geographical proximity. If during the previous 7 days two violent events took place, one in an adjacent Kreis and in a far-away Kreis, the inverse distance to the adjacent Kreis was used to measure geographical proximity. Theories on direct-tie diffusion would lead us to expect that there is a positive association between the violence hazard and the geographical proximity of previous incidents of xenophobic violence.7

Severity
To tap the severity of violence we developed a scale based on four indicators: the number of participants in a violent event, the number of injuries, the number of deaths, and the amount of arrests in such events during the previous 7 days. A reasonable scale ($\alpha = 0.66$) was developed by taking the mean z-score. Severe violence is expected to receive more exposure, leading to more diffusion in subsequent time periods.

Media Visibility
Three types of media visibility are measured to test selective exposure arguments.

(i) Photo: the percentage of events in other Kreise in the preceding month that was covered with an accompanying photograph.

(ii) Front page: the percentage of events in other Kreise in the preceding month that was covered on the front page.

(iii) Both datasets: the percentage of events in other Kreise in the preceding month that was covered in both the Koopmans and Francisco datasets on extreme right violence in Germany.8

Since all variables are highly skewed all values were log transformed.9 All three indicators are expected to make preceding events more visible to prospective imitators. Previous events that were accompanied by visual cues in the media, and that received front page coverage are more likely to be imitated than those that received standard coverage. Because the two datasets are based on different media samples, we interpret the presence of an event in both datasets also as an indicator of media visibility. The higher the number of media sources that cover an event, the more likely it is that this event will cause copycat events elsewhere.

Media Consonance
In addition to information on extreme right violence, the MERCI dataset contains information on the public debate on immigration. During the period of our study, an intense debate was waged in Germany over restrictions in the rights of asylum seekers, in the wake of the explosive growth in their numbers. This controversy, which pitted the Christian-Democrats against the Social Democrats, was resolved by the so-called asylum compromise of December 1992, after which both the numbers of asylum seekers and the intensity of the immigration debate declined. Our measure counts the weekly number of negative statements about immigrants in the preceding calendar week, and we expect high levels of such statements to increase subsequent rates of extreme right violence.10

Social Similarity (Homophily)
Five measures that gauge social similarity between transmitters and adopters of collective violence are utilized. First of all we consider the share of incidents in the preceding week that occurred in the same ‘Bundesland’ and same part of the country (East or West Germany) to be important indicators of political and sociocultural similarity. Only a few years after reunification, the division between East and West was (and to this day is) an important cleavage in German society and an important source of collective identification. The same also holds for the federal states, which are not only administrative units with a substantial amount of autonomy, particularly in the cultural domain, but also an important source of identification, although the extent of such emotional attachments varies somewhat from one ‘Bundesland’ to the other. We therefore expect activists to be more strongly influenced by previous events that occurred in the same part of Germany and in the same federal state, even when we control for geographical distance.

We also expect other indicators of political, socio-economic, and demographic similarity to play a role. We expect activists to be more strongly influenced by previous events in other Kreise that are perceived as being similar to their own Kreis in the sense that they are populated by similar people (rural/urban) with a similar political leaning (left/right). The rural/urban and left/right divides are influential cleavages in German society and therefore play an important role with respect to social identification (Lepsius, 1990). In addition, we assume that activists will be more inclined to copy behaviour from people who are confronted with a similar demographic situation in
terms of the level of immigration. For instance, we expect conservative rural Kreise with small immigrant populations to be especially influenced by Kreise with similar characteristics, particularly if they are in addition situated in the same part of the country and in the same 'Bundesland'. Net of these specific measures of social similarity, geographical distance may still pick up unmeasured aspects of similarity, although we hope that by including our detailed measurement of specific aspects of similarity we can wholly or largely explain away the theoretically under-specified geographical distance effect. Political left/right similarity is measured as the inverted difference in the percentage of Christlich-Demokratische Union Deutschlands (CDU)/Christlich-Soziale Union in Bayern (CSU) votes between a particular Kreis and the most similar Kreis that had an event in the preceding week. Socioeconomic similarity is measured by the inverted difference in the percentage of the working population that is employed in the agrarian sector between a particular Kreis and the most similar Kreis that had an event in the preceding seven days. Demographic similarity is measured by the inverted difference in the percentage of foreigners between a particular Kreis and the most similar Kreis that experienced an instance of racist violence during the preceding 7 days.

We continue by describing the variables that are used to investigate how structural conditions affect the rate of extreme right violence. All data, unless indicated otherwise are collected from the 1994 Statistical Yearbook for Germany (Statistisches Bundesamt, 1994).

Ethnic Competition

The proportion of foreigners as reported in the year 1994 and unemployment rates for the year 1993 are used as measures of ethnic competition for spatial units. In line with ethnic competition theories we expect both variables to have a positive effect on the propensity for violence. In addition to the measures of labour market competition between immigrants and natives that we tap by the Kreis-specific unemployment and immigrant rates introduced above, we take into account that much of the political controversy during the period of study concerned a specific group of immigrants, asylum seekers. In an objective sense, asylum seekers did not compete with natives on the labour market, because pending the decision on their asylum request, they were not allowed to work, and a large majority of applications were in the end denied. Of course, this does not exclude the possibility that many people subjectively perceived them as competitors for jobs. Asylum seekers were moreover a significant burden on the welfare state. Decisions on applications could take years, and during that time asylum seekers received public welfare assistance. Thus, competition related to welfare benefits and their costs may have played a role. We hypothesize on the basis of the ethnic competition perspective that high numbers of asylum seekers increased the rate of extreme right violence. Our variable measures the number of new asylum seekers in thousands in the preceding calendar month.

Social Disorganization

We use the total migration flow in and out of the Kreis in thousands to gauge the social dislocation of a community. We further use the emigration surplus as an indicator of unfavourable socioeconomic conditions in a Kreis. Many rural East German areas experienced strong population losses due to emigration during the period of study, spurred by a lack of jobs and other opportunities for social mobility. Finally, we also use average life expectancy as an indicator of social problems. Parts of East Germany experienced significant drops in life expectancy as a result of the turmoil of reunification. Social disorganization theories lead us to expect more violence in Kreise that have high levels of migration, an emigration surplus, and a lower life expectancy.

Political Opportunity Structure

The percentages of votes in the 1994 Bundestag elections for the main extreme right party (the Republikaner), as well as for the established conservative parties (CDU and CSU), are used as indicators of the local political opportunity structure. Previous studies lead us to expect that the stronger the electoral power of extreme right and moderate right parties, the lower will be the intensity of extreme right violence. The data have been collected from the election atlas.

Finally, we include a number of control variables. All other things being equal, more populous Kreise will have a greater likelihood to experience a violent event than sparsely populated Kreise. In addition, violence in capital cities of the 16 German federal states may attract more media attention because these are the places where media and wire service correspondents are concentrated. We control for these two Kreis characteristics by including a capital city dummy and the population size in thousands. Earlier research on xenophobic violence in Germany also suggests that such events occurred disproportionately on weekend nights, often linked to alcohol abuse (e.g. Willems and
In addition, we explore systematic seasonal variation, in particular whether violence was more likely during the warmer months of the year when many people, both racist perpetrators and their victims, are out in the streets. We therefore control in our analysis for weekend days and the summer months.

**Results**

Table 1 presents the results of the stratified Cox regression. We present hazard ratios, the hazard of a particular case divided by the hazard of a case that scores one point lower on the relevant covariate. We prefer hazard ratios above standardized coefficients because they allow for a more straightforward interpretation: a hazard ratio of 1.100 indicates that a one-point increase in the independent variable increases the violence hazard with 10 per cent. In the first model we include the measures of local structural characteristics of Kreise, adding controls for previous incidents in a Kreis (history of violence), population size, whether a Kreis is a political capital or not, as well as the summer and weekend dummies. As expected, we find positive effects for capital cities and for population size. In line with previous research the model shows that extreme right violence is overrepresented during weekends, when the violence risk is more than 70 per cent higher than on regular weekdays. Xenophobic violence is however not more likely to occur during the summer months. Although the parameter has a considerable positive effect in the first model, it turns insignificant when the two diffusion parameters are added, indicating that the summer effect is actually mediated by diffusion.

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<th>Table 1 Cox regression stratified by East/West region of instances of anti-foreigner violence in Germany 1990–1995 on Kreis and event characteristics</th>
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*P<0.05 (one-tailed); **P<0.01 (one-tailed).
Turning to the more theoretically interesting results of the first model, we find some support for ethnic competition theories. Both the number of foreign immigrants in a Kreis and the monthly influx of asylum seekers have positive impacts on violence. A Kreis with a 1 per cent higher immigrant population share has a 6 per cent higher violence hazard. An influx of 1,000 asylum seekers in the preceding month results in a 5 per cent higher violence risk. While these immigrant and asylum seeker effects are substantial, we find no association between unemployment rates and ethnic violence, providing only partial support for the notion that ethnic violence follows from competition between ethnic groups over scarce resources such as jobs, although as we have indicated above, in the case of asylum seekers, competition related to welfare benefits may have been more important than competition over jobs.

The first model also shows considerable support for social disorganization theories. Population instability in the form of high migration flows increases the rate of xenophobic violence. Crisis-ridden Kreise that experience net population losses due to emigration also have higher rates of violence. By contrast, areas with a higher than average life expectancy experience fewer xenophobic events. In line with disorganization theories we thus find that xenophobic violence is associated with anomic conditions and social problems.

We additionally find strong support for political opportunity structure approaches. The electoral strength of both extreme right and moderate right parties has an inhibiting effect on violent mobilization. Xenophobes in Kreise where the right, and especially the extreme right, has a stronger position in local parliaments are less inclined to revert to violent tactics. In a Kreis with 1 per cent more votes for extreme right parties the intensity of extreme right violence is more than 30 per cent lower.

The second model in Table 1 goes beyond the precipitating conditions in particular Kreise and introduces two general measure of diffusion, the effect of previous events in other Kreise, and the geographical proximity variable. The number of violent events during the previous 7 days in the rest of Germany, which taps general diffusion processes, has a strong and positive influence on subsequent rates of anti-foreigner violence in a particular Kreis. Each preceding incident results in 3 per cent more violence. The geographical proximity variable is also significant and in the predicted direction, offering preliminary support for the notion that violence in areas close to a given Kreis has an additional positive effect over and above the general diffusion effect.

Model 3 adds the variables relating to the severity of previous events, the intensity of media coverage that they attracted and the media debate on immigration. The results support our selective exposure and discursive opportunity predictions. Severe violence and violence that appears on the front page, is visualized with a photo, or which is reported in more than one media source diffuses faster than violent events that receive less exposure. Moreover the model shows that the weekly number of negative statements about immigrants appearing in the media strongly increases the rate of violence. Every negative statement increases the violence hazard with more than 5 per cent.

In the fourth and final model we enter the social similarity variables. Nearly all estimated coefficients support homophily arguments of diffusion. Preceding violence has a stronger impact on subsequent rates of mobilization when it occurs in the same Bundesland and is initiated in politically and socioeconomically similar regions that are confronted with similar rates of foreigners. The effect of preceding violence that occurs in the same East/West region is also positive and in the expected direction, but it does not reach statistical significance. Hence we conclude that our theoretical expectation is confirmed that local right-wing activists were more inclined to copy behaviour from their counterparts in Kreise where people experience similar economic, political, and demographic circumstances. Interestingly, geographical distance becomes insignificant once the similarity indices are included in the model.

**Conclusions and Discussion**

In this article, we have sought to explain the temporal and geographical spread of xenophobic violence in Germany in the first half of the 1990s by integrating diffusion approaches with theories of local precipitating conditions that emphasize ethnic competition, social disorganization, and political opportunities. Regarding diffusion, our main innovation is our detailed operationalization of homophily by way of pair-wise measures of political, economic, and demographic similarity across geographical units. We hypothesized that homophily might account in whole or in part for the prominent effects that geographical distance has in previous studies of diffusion.

Contrary to earlier studies on extreme right violence in Germany we focussed on the most fine-grained administrative unit for which statistical data are available in Germany, the Kreis. This allowed us to test in more detail than before whether dominant theories of
ethnic violence such as ethnic competition theories, social disorganization perspectives and political opportunity approaches can account for extreme right violence. Our analysis partially supports the first approach and finds suggestive evidence for the latter two perspectives.

Regarding diffusion effects, we find in line with previous studies that selective exposure, caused by the severity of violence and the intensity of media coverage reinforces diffusion processes. Through media coverage, extreme right activists learn about events elsewhere that may become templates for imitation, especially if, as our results indicate, they occur within the context of an intense public debate on immigration, which amplifies such events and confers a degree of legitimacy to them. We also find strong support for the role of social similarity or homophily. Violent behaviour against immigrants was more readily imitated when the adopting and transmitting Kreise resembled each other with respect to political, socio-economic, and demographic structures, measured by the degree of similarity between two counties in terms of the strength of right-wing parties, the share of agrarian employment, and the percentage of immigrants.

A crucial result of our analysis is that after including direct measures of social similarity across spatial units, we found no substantial effect anymore for geographical distance. This is suggestive evidence for the importance of homophily, and indicates that the effect of geographical distance is actually caused, as Tarde suggested, not by geographical proximity as such, but by the fact that proximate areas tend to be socially similar. The spatial diffusion effects that are found in many studies may actually be crude proxies of social similarity, which lose significance once more specific measures of social similarity are taken into account. There is a tendency among recent scholars of social movement diffusion to regard geographical distance as a measurement of existing network ties (Hedstrom, 1994; Myers, 2000; Andrews and Biggs, 2006). However, if distance does not affect diffusion once controls for social similarity are added this interpretation might have to be reconsidered.

The importance of homophily for diffusion raises the question of the micromechanisms by which adopting activists become aware of social similarities between spatial units. It is not realistic to assume that extreme right activists know the political balance of power, economic structure, and composition of the population of every county in Germany. But how then can they then determine whether or not a particular template event occurs in a social context that is similar to their own? To answer this question, one would ideally prefer to have individual-level data on cross-local subjective identification and network links to provide evidence of the micromechanisms behind the homophily effect. However, such data are virtually impossible to collect for more than a few locations.

We nevertheless believe that our results can be plausibly interpreted in terms of micromechanisms, even if we cannot measure these directly. That activists perceive similarities with other counties in the same East/West region and in the same ‘Bundesland’ is easily understood, as people in Germany have clear ideas—true or stereotypical—about differences between Easterners and Westerners, or Bavarians and Berliners, and identify with these categories. Media information on events in Germany moreover almost invariably mentions the ‘Bundesland’ in which events occur. The other three measures of similarity are highly positively correlated with geographical distance (between 0.57 and 0.70). Therefore, when we are talking about imitation across homophilous Kreise, we are often also talking about Kreise that are close in geographical space. Activists are likely to have knowledge about the political and social structure of proximate Kreise through personal visits and network contacts.

To the extent that diffusion occurs across greater geographical distances, the mass media play a crucial role in transmitting relevant information, not just about violent events, but also about the social context in which they occur. Media information about events is often accompanied by additional information about the event location, especially in the case of the more severe instances of violence, which as we showed have the strongest diffusion effects. Coverage of such events usually contains information on the number and type of immigrants living there, whether it is a rural town or a large city, and (for instance in the form of quotes by local politicians) about the political leanings of the locality. Future research may build on our findings by investigating how contextual information transmitted by the mass media affects how perceptions of similarity and dissimilarity across localities are constructed.

Notes

1. To make sure the findings are not affected by the tied-event problem, a negative binomial regression based on event counts per day-Kreis combination was conducted. This model confirmed all findings
presented below, indicating the robustness of the results.

2. We further compared the Frankfurter Rundschau data to the coverage on extreme right violence in the Bild-Zeitung for the 1991–1992 period and in three East German newspapers for June–September 1991. The Frankfurter Rundschau is by far the most inclusive of these sources, reporting two to three times as many violent events as the other newspapers. Weekly aggregates in the Frankfurter Rundschau data correlate highly with the other sources (between 0.89 and 0.99). We therefore conclude that the Frankfurter Rundschau provides an inclusive and representative picture of the rate of extreme right violence.

3. However, we also estimated Weibull and Gompertz–Makeham models, two prevalent specifications of time dependence used in the study of collective action (Olzak, 1992), which were consistent with the Cox-regressions presented below.

4. We also compared the log-likelihood differences of our stratified model with pooled models with either fixed or random effects for East–West region. The stratified model had the best model fit. Moreover the alternative specifications resulted in minor violations of the proportional hazards assumption.

5. A national-level time series analysis based on event counts per day, including all variables that only vary over time, confirmed all findings presented below, indicating that our results were not biased by unobserved heterogeneity. Estimating random effects might be an alternative strategy to deal with unobserved heterogeneity. However, as far as we know, this estimation technique is not yet available for stratified Cox regressions.

6. We also experimented with a squared diffusion term to model the decaying effect of diffusion. This did not alter the relations presented below. We decided not to include the variable because its inclusion caused some concern with respect to multicollinearity.

7. We also experimented with the mean inverted distance and the square inverse root functions (Hedstrom, 1996; Andrews and Biggs, 2006) of distance. Results with all three parameters are similar.

8. We tried to collapse these three measures of visibility into one index. The reliability of this scale, however, turned out to be very low indicating that the three proxies tap different dimensions of visibility that deserve separate attention.

9. 1 was added to deal with zero values.

10. Since the location of statements about immigration is known, it would have been possible to disaggregate the data to also capture cross-sectional variation in debate intensity. However, because the immigration debate was in essence a national-level debate, most of these events are concentrated in the national seats of government, Bonn and Berlin. Likewise, statements on immigration by regional politicians were almost invariably made in the capitals of the Bundesländer. As a result, the frequency of immigration statements in Bonn, Berlin, or Wiesbaden cannot be interpreted as a variable capturing a local characteristic, but simply reflects the institutional loci of German politics.

11. We additionally considered similarity measures based on the percentage of votes for the Greens, the PDS (post-communists), and the Republikaner, but these did not attain significance once the CDU-based variable was introduced. We therefore concluded that the percentage of CDU votes best summarizes the political leaning of a Kreis.

12. We additionally considered similarity regarding industrial employment, but found no significant effects once percentage agrarian was included. We therefore concluded that the cleavage between urban and rural Kreise, which is best captured by the percentage employed in the agrarian sector is the most relevant measure of socio-economic similarity for the case at hand.

13. Statistics for East German Kreise were not immediately available after reunification in October 1990. In addition, in the years immediately after reunification many borders of East German Kreise were redrawn. We were therefore constrained to measure many independent variables time invariant, for the first year for which data are available after the redrawing of Kreis boundaries, i.e. 1994. For some variables of
potential interest—such as the local gross domestic product—data are incomplete for the entire period of our study. We therefore had to exclude these variables from the analysis.

14. We also tried an interaction term of both variables. Due to serious problems of multicollinearity (the interaction term and the percentage of foreigners correlated almost 0.90) we decided not to include this interaction term in our model.

15. Monthly asylum seeker numbers were provided by the former Bundesamt für die Anerkennung ausländischer Flüchtlinge (now part of the Bundesamt für Migration und Flüchtlinge) and are only available for the national level. However, asylum seekers were distributed proportionally across the 16 Bundesländer and regional variation was therefore limited. Of course within Bundesländer, not every Kreis had an asylum seeker centre, and this may be a cause of variation in the rate of extreme right violence, as asylum seeker centres were an important target, especially in the Eastern part of the country, where asylum seekers formed the majority of foreigners. Asylum seekers are, however, included in the local foreign population statistics, and thus variation in the availability of targets for violence across Kreise is captured by this measure.


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