Original Article

Support for Refugee Integration in West and East Germany

Results From Two Lost Letter Studies

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Abstract: Prior research has reported less favorable attitudes toward and more violent crimes against ethnic out-group members in East (vs. West) Germany. We conducted two pre-registered lost letter studies in West versus East German cities (Study 1, *N* = 400) and in West versus East German rural areas (Study 2, *N* = 400). To investigate supportive behavior regarding refugee integration, we manipulated the addressee (refugee-integration vs. immigration-stop projects). Contrary to predictions, letter return rates did not differ between West and East Germany. Across western and eastern German regions, return rates were higher for the refugee-integration project in urban areas while no differences emerged in rural areas. A pooled analysis found greater support for the refugee-integration (vs. immigration-stop) project.

Keywords: refugee integration, immigration, lost letters, prosocial behavior, Germany

Since 2015, wars and other conflicts have forced more than 68 million individuals globally to flee their places of residence, leading to what has been coined the greatest so-called "refugee crisis" since World War II (Bansak, Hainmueller, & Hangartner, 2016; Esses, Hamilton, & Gaucher, 2017). While most refugees are (temporarily) settling in neighboring countries, many refugees have also arrived in western Europe in the course of the past recent years. In Germany alone, more than 1.6 million individuals applied for asylum since 2015 (German Federal Office for Migration and Refugees, 2019). The surge of incoming refugees has resulted in high levels of helping behavior, hospitality, and charity for refugees in some residents of western European countries (Stürmer & Siem, 2017), but also in massive opposition and hostility against refugees (e.g., Benček & Strasheim, 2016). East German residents in particular are reportedly more opposed to policies promoting refugee integration into society and more prone to form nationalistic movements like the "Patriotic Europeans Against the Islamization of the Occident" ("Patriotische Europäer gegen die Islamisierung des Abendlandes"; PEGIDA; Yendell, Decker, & Brähler, 2016; also see Dostal, 2015; Küpper, Schröter, & Zick, 2019).

Attitudes Toward Migrants in East and West Germany

The vast majority of previous studies has revealed higher levels of prejudice against members of ethnic out-groups in eastern German as compared to western German federal states (e.g., Asbrock, Lemmer, Becker, Koller, & Wagner, 2014; Wagner, van Dick, Pettigrew, & Christ, 2003; also see Andresen, Neumann, & Public, 2018; Semyonov, Raijman, Yom Tov, & Schmidt, 2004; Wagner, Christ, & Pettigrew, 2008; cf. Czymara & Schmidt-Catran, 2016). In response to the recent so-called "refugee crisis," concerns about immigration reportedly increased twice as much in East as compared to West Germany (Sola, 2018; also see Jacobsen, Eisnecker, & Schupp, 2017), and these increases regarding concerns about immigration have been found to contribute to political support for right-wing populist parties (Sola, 2018). Other recent large-scale surveys that assessed attitudes related to the immigration situation in Germany also found that xenophobia was more pronounced in respondents residing in East German federal states than in those living in West German parts (e.g., Decker, Kiess, Eggers, & Brähler, 2016).

Regarding the achievement of successful refugee integration, residents' actual behaviors have potentially greater impact than self-reported attitudes. Given the notorious potential gap between attitudes and behavior (Armitage & Christian, 2003; LaPiere, 1934; Wicker, 1969), it is desirable to assess actual behaviors rather than attitudes relevant to refugee integration. Extant studies assessing behaviors have focused on aggressive behavior, specifically, violent hate crimes against refugees including arson and (physical) assault. It has been found that the rate of such crimes is considerably higher in eastern German federal states as compared to western German federal states (e.g., Jäckle & König, 2017). However, more mundane behaviors relevant to refugee integration have not been examined so far. Such an extension would greatly enhance external validity because, although every single act of violent aggression should of course be condemned, they are exhibited only by a very small proportion of host-society residents (see Benček & Strasheim, 2016). Studying mundane behaviors like simple acts of helping in this context is especially desirable because positive (i.e., prosocial) behaviors toward an out-group are not simply predicted by a lack of negative (i.e., aggressive) behaviors toward the out-group (e.g., Pittinsky, Rosenthal, & Montoya, 2011; Stürmer et al., 2013).

To understand the phenomena related to potentially different attitudes toward migrants in eastern and western Germany, one needs to keep in mind that until the reunification in 1990 there had been two different political systems and regimes in the western Federal Republic of Germany and the socialist eastern part of Germany with different approaches to immigration and the treatment of migrants. After World War II, the western part of Germany (i.e., the Federal Republic of Germany) followed a policy of continuous in-migration (Wagner, Christ, Pettigrew, Stellmacher, & Wolf, 2006), whereas the previously socialist East (i.e., the former German Democratic Republic) adopted a restrictive policy according to which foreigners, most of whom came from other socialist countries, typically had to leave the country after 5 years (see Asbrock et al., 2014).

Until today, the proportion of migrants and individuals with a migration background is about four times lower in eastern than in western German federal states (Statistisches Bundesamt, 2018). Such preconditions consequently provide only relatively few opportunities for intergroup contact for Germans residing in East as compared to West German federal states. Following intergroup contact theory (Allport, 1954) and its subsequent further developments (e.g., Pettigrew, 1998), intergroup contact reduces prejudice against members of (ethnic) out-groups, especially when it occurs under optimal conditions. Thus, the currently predominant social psychological theoretical explanation for higher prejudice levels and more negative attitudes held against members of ethnic out-groups (e.g., Decker, Kiess, & Brähler, 2016; Küpper et al., 2019) as well as higher rates of xenophobic attacks and hate crimes against foreigners (e.g., Benček & Strasheim, 2016) in East versus West Germany are the lower levels of opportunities and experiences of contact with members of ethnic out-groups in East German as compared to West German federal states (Wagner et al., 2003; also see Andresen et al., 2018). Furthermore, recent large-scale surveys also found that contact specifically with refugees is more prevalent in West than in East Germany (Ahrens, 2017).

Another potential explanation for differences in attitudes toward members of ethnic out-groups between East and West Germans is greater perceived threat allegedly posed by these out-group members (see Semyonov et al., 2004). Higher unemployment rates in eastern versus western German federal states may contribute to such differences in perceived threat: The fear of competition for resources and economic opportunities with out-group individuals could translate into higher perceived realistic threat. This perception may, in turn, have an impact on prejudice and other negative attitudes toward members of ethnic out-groups. An analysis by Wagner and colleagues (2006), however, suggests that differences in prejudice levels between East and West Germany are a consequence of different levels of intergroup contact rather than of perceived threat.

To our knowledge, there are no published studies to date that compare instances of actual (i.e., observed instead of self-reported) supportive, prosocial behavior, that is, for example, acts of actual helping behavior concerning refugee integration and the immigration context between residents of the eastern and western parts of Germany following the recent so-called "refugee crisis." Still, recently some scholars have explicitly highlighted the importance of comparisons between East and West Germans concerning refugee immigration-related issues (e.g., Kotzur, Forsbach, & Wagner, 2017). In the present studies, we investigated potential differences in supportive behavior regarding refugee-integration projects in East versus West Germany.

The Present Research

The lost letter technique (e.g., Merritt & Fowler, 1948; Milgram, Mann, & Harter, 1965) is an unobtrusive method that allows experimental manipulations in the field. Because individuals are not aware of participating in a scientific study, this experimental paradigm is not afflicted by potential reactivity, demand effects, or strategic response biases (e.g., Bridges, Anzalone, Ryan, & Anzalone, 2002; Milgram et al., 1965). Specifically, it can be employed to assess prosocial, supportive behavior toward members of different groups or different organizations in a particular

population. It has been used previously to investigate intergroup behavior in Germany (e.g., Hellmann, Berthold, Rees, & Hellmann, 2015; Klink & Wagner, 1999; Koopmans & Veit, 2014). Seemingly lost letters, typically fully stamped, are laid out on sidewalks or are attached at random cars' windshields. The information about addressee or sender of the letters are varied and typically hint at their (e.g., ethnic or political) group membership. Therefore, the differential return rates of the lost letters can be interpreted as a measure of discrimination against one group or another. In other words, differential return rates can show that members of one group receive more help than members of another group. The lost letter technique, however, can also be used to assess attitudes toward political agendas and ideas (e.g., Milgram et al., 1965). For the present study, we intended to investigate potential differences between East and West Germany regarding residents' attitudes toward immigration and refugee integration with a behavioral method, that is, with the lost letter technique. Because an individual person's name would not necessarily display their political attitude, we decided to use ostensible projects as addressees.

Before we dispersed the letters for the present studies, we pre-registered our hypotheses (see https://osf.io/we7c6/). To be clear, the pre-registration of Study 2 took place after we had analyzed the data from Study 1. We hypothesized that more letters for the refugee-integration project would be returned from a West German city than from an East German city (Study 1) and from West German (vs. East German) more rural areas (Study 2). We also predicted that more letters for the immigration-stop project would be returned from the East German than from the West German dispersion locations. Further analyses should determine whether (a) more letters would arrive for the refugee-integration project than for the immigration-stop project from the West German areas, and whether (b) more letters for the immigration-stop project would arrive than for the refugee-integration project from the East German areas.

We report deviations from the preregistrations in the Appendix.

Study 1

Method

In line with Simmons, Nelson, and Simonsohn (2012), we report how we determined our sample size, all manipulations, and all measures that were recorded in the study. Study 1 employed a 2 (location of the city in which letters were dispersed: East vs. West Germany) × 2 (addressee: refugee-integration project vs. immigration-stop project) between-subject design. The only dependent variable was the number of apparently lost letters that were posted and received. Using G*Power 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009) to calculate the required sample size with $df = 3$, at an α-level of .05, and $1 - \beta = .80$ for an estimated small- to medium-sized effect of $w = 0.19$ (see Hellmann et al., 2015), the resulting sample size was $N = 303$. Because overall return rates for lost letter studies can be very different even within single cities (e.g., Koopmans & Veit, 2014), we decided in advance to lay out $n = 100$ letters per condition, resulting in $N = 400$ letters overall. Consequently, $N = 400$ fully stamped letters were dispersed face up on sidewalks or between parked cars (i.e., address field and stamp visible) so that they appeared to be lost. Letters were dispersed at a distance of at least approximately 200 m from another letter to minimize the risk of one letter being visible from the location of another. The cities of Dresden (East Germany) and Bremen (West Germany) were selected because they were comparable in size with populations of approximately 540,000 inhabitants. For practical reasons, the letters were distributed on two consecutive weekends in the spring of 2018, in the East German city first, then in the West German city.

Before dispersion of the letters within each city began, they were shuffled to ensure random distribution regarding the respective condition, that is, refugee-integration project or immigration-stop project. In case, a finder would open an envelope, the letters contained a short note in German that read to the effect of "Dear Jens, below please find what I did not want to send you in digital. Best, Falko", followed by a scatter plot indicating a correlation. Typically, the postmarks from the German Mail Service allow for a geographic allocation of where a letter has been posted. Additionally, and not visible on the sealed letters, we included the location of the ostensible sender, indicating the place of dispersion of the respective letter (i.e., project Bremen or project Dresden, respectively). The street address was the same for both projects as addressees. The study design was approved by the Psychology department's ethics committee of the University of Münster, Germany.

Results

In total, 188 of the 400 dispersed letters were returned. In other words, the overall return rate was 47% (see Table 1). From the West German city, a total of 93 (of 200) letters were returned, 62 (of 100) for the refugee-integration project, 31 (of 100) for the immigration-stop project. From the East German city, a total of 95 (of 200) letters arrived, 65 (of 100) for the refugee-integration project, 30 (of 100) for the immigration-stop project. The planned test according to how the sample size was determined as specified in the pre-registration revealed a significant difference between the conditions with a medium

Table 1. Study 1: Differential letter return rates

	Location where letters were dispersed	
Addressee (project)	East German city	West German city
Immigration stop	30	31
Refugee integration	65	62

Note. Total $N = 400$ dispersed letters. Numbers of returned letters in the table also represent percentage per group (because $n = 100$).

effect size, $\chi^2(3, N = 400) = 43.92$, $p < .001$, $w = 0.33$. Here we report the χ^2-test based on the 2 (returned vs. non-returned) × 4 (refugee integration-West vs. refugee integration-East vs. immigration stop-West vs. immigration stop-East) contingency table. However, the pre-registration for Study 2 included R code for a goodness-of-fit test of a uniformly distributed condition variable for only returned letters. That test did not yield a different conclusion, $\chi^2(3, N = 400) = 23.28$, $p < .001$, $w = 0.35$. For further explanations, see The Present Research section.

Additionally, a log-linear analysis was performed to examine the effects of the independent variables on the observed cell frequencies in detail. This pattern implied a main effect of addressee in favor of the refugee-integration project, $\beta = 0.73$, $SE = 0.16$, $z = 4.71$, $p < .001$. There was no main effect of dispersion location, $\beta = -0.02$, $SE = 0.15$, $z = -0.15$, $p = .884$. Contrary to our predictions, there were also no differences regarding differential return rates between the locations for the letters to the immigration-stop project or the refugee-integration project, that is, the interaction of addressee and dispersion location was not significant, $\beta = -0.08$, $SE = 0.31$, $z = -0.26$, $p = .797$. Put differently, the difference between returned letters for the refugee-integration project and immigration-stop project was found for the West German city, $\beta = 0.69$, $SE = 0.22$, $z = 3.15$, $p = .002$, and for the East German city, $\beta = 0.77$, $SE = 0.22$, $z = 3.50$, $p < .001$ (this coefficient was part of the estimated log-linear model). The first specific contrast coefficient was recalculated based on the coefficients from the log-linear model. The standard error was calculated by means of the delta-method (Dorfman, 1938) as implemented in the R package msm (Jackson, 2011). Moreover, there were no differences regarding the return rates between the dispersion locations (positive coefficients reflect a larger number of returned letters for the West German city) for the letters to the immigration-stop project, $\beta = 0.03$, $SE = 0.26$, $z = 0.26$, $p = .898$ (this coefficient was part of the estimated log-linear model), or the refugee-integration project, $\beta = -0.05$, $SE = 0.18$, $z = -0.27$, $p = .790$ (this coefficient was also recalculated and analyzed based on the delta-method). These specific contrasts could also be addressed by means of χ^2-tests based on returned and non-returned letters. However, such a different approach did not yield different results, with comparably significant differences regarding the return rates between the projects in favor of letters returned for the refugee-integration project over the immigration-stop project in the West German city, $\chi^2(1, N = 200) = 19.32$, $p < .001$, $w = 0.31$, and in the East German city, $\chi^2(1, N = 200) = 24.56$, $p < .001$, $w = 0.35$. Moreover, there were no differences concerning the return rates between the dispersion locations for the letters to the immigration-stop project, $\chi^2(1, N = 200) = 0.02$, $p = .878$, $w = 0.01$, or the refugee-integration project, $\chi^2(1, N = 200) = 0.19$, $p = .660$, $w = 0.03$.

Discussion

Using the lost letter technique (Milgram et al., 1965), Study 1 shows that a refugee-integration project appears to benefit more from actual helping behavior than an immigration-stop project, independent of location of dispersion of lost letters in an East and a West German city. This result is inconsistent with our initial, pre-registered predictions as well as previous research results from studies and surveys that relied on self-reports or showed higher numbers of xenophobic hate crimes in East versus West Germany (e.g., Asbrock et al., 2014; Semyonov et al., 2004; Wagner et al., 2003). With a focus on actual positive, prosocial behaviors, that is, posting an apparently lost letter, the results from Study 1 indicate that, on a behavioral level, differences between East and West Germany concerning issues on refugee integration might be smaller than predicted. In the East and West German cities, in which we dispersed the letters, there might be comparable numbers of residents with pro-refugee integration positions.

Another reason for these unpredicted results might be that, under certain conditions, providing help for an out-group or an organization or agenda supporting a particular out-group can be beneficial for the in-group as well (for an overview, see van Leeuwen & Täuber, 2010; also see Stürmer & Siem, 2017). In the present case, some finders of letters addressed to the refugee-integration project may have been (implicitly) aware of the idea that integration is believed to be the acculturation strategy with the best outcomes for both groups involved (e.g., Berry, 1997; also see Ward & Geeraert, 2016). In this case, posting a letter addressed to a refugee-integration project may be prosocial behavior that also benefits the finders' supposed in-group and thus also occur in the East German city although attitudes toward refugee integration could be in fact more negative.

One potential shortcoming of Study 1 could have been that we circulated the lost letters only in two cities, that is, in urban areas. Previous research conducted in Germany has shown that prejudice against ethnic out-groups is stronger in rural versus urban areas (e.g., Semyonov et al., 2004), and, more recently, that there were more violent

anti-refugee crimes in East versus West Germany, especially in more rural areas (see Jäckle & König, 2017). We thus conducted Study 2 to disperse letters in more rural areas in East and West Germany.

Study 2

Because of the aforementioned previous findings indicating differences between urban and rural areas regarding prejudice against ethnic out-groups in Germany (e.g., Semyonov et al., 2004), we also predicted for Study 2 that more letters for the "refugee integration" project would be returned from the West German than from the East German more rural dispersion locations. Again, we also predicted that more letters for the immigration-stop project would be returned from the East German than from the West German more rural letter dispersion areas.

Method

As Study 1, Study 2 also employed a 2 (dispersion location: East vs. West Germany) × 2 (addressee: refugee-integration project vs. immigration-stop project) design. The only dependent variable was again the number of apparently lost letters that were posted and received. As for Study 1, we decided in advance to lay out $n = 100$ letters per condition, resulting in $N = 400$ letters overall. Consequently, $N = 400$ fully stamped letters were dispersed face up on sidewalks (i.e., address field and stamp visible) so that they appeared to be lost. Again, letters were dispersed at a distance of at least approximately 200 m from another letter to minimize the risk of one letter being visible from the location of another. Letters were distributed on two weekends in late February and early March 2019, in the East German areas first, then in the West German areas.

We selected 10 small towns in Saxony (the federal state surrounding Dresden in East Germany) and 10 small towns in Lower Saxony (the federal state surrounding Bremen in West Germany). Out of approximately 30 small towns with a population between 5,000 and 40,000 inhabitants, randomly pre-selected per federal state, we chose 10 small towns per federal state based on the criterion to match approximately the total number of inhabitants between East and West German dispersion locations, given the information provided in the small towns' respective Wikipedia entries. For Saxony, these were the towns Döbeln, Borna, Frankenberg, Wilsdruff, Bannewitz, Bad Lausick, Groitzsch, Hartha, Oederan, and Freital, equaling a total of 156,307 inhabitants. For Lower Saxony, the following towns resulted: Bramsche, Vechta, Damme, Diepholz, Bassum, Goldenstedt, Visbek, Neuenkirchen-Vörden, Holdorf, and Bakum, equaling a total of 150,521 inhabitants. For each small town, 20 letters, that is, 10 per project, were shuffled face down (i.e., addressee project not visible) to ensure random dispersion per location.

For potential finders opening the letter, the content of the letters was the same as in Study 1 with the following exception: Instead of the information "project Bremen" or "project Dresden" that was included not visible to potential finders, we included the letter "W" for West German areas and the letter "O" for East (German: Ost) German areas, again not visible for finders who did not actively open the respective letter. The street address for both projects was the same as in Study 1.

Results

In total, 93 of 400 dispersed letters were returned. In other words, the overall return rate was 23.25% (see Table 2). From the West German rural areas, a total of 41 (of 200) letters were returned, 26 (of 100) for the refugee-integration project, 15 (of 100) for the immigration-stop project. From the East German rural areas, a total of 52 (of 200) letters arrived, 29 (of 100) for the refugee-integration project, 23 (of 100) for the immigration-stop project. The planned test according to how the sample size was determined as specified in the pre-registration revealed no significant difference between the conditions, $\chi^2(3, N = 400) = 6.09$, $p = .107$, $w = 0.12$. Here, we report the χ^2-test based on the 2 (returned vs. non-returned) × 4 (refugee integration-West vs. refugee integration-East vs. immigration stop-West vs. immigration stop-East) contingency table. However, the pre-registration for Study 2 included R code for a goodness-of-fit test of a uniformly distributed condition variable for only returned letters. That test did not yield any different conclusion, $\chi^2(3, N = 400) = 4.68$, $p = .197$, $w = 0.22$. For further explanations, see The Present Research section.

Additionally, a log-linear analysis was performed to examine more closely the effects of the independent variables on the observed cell frequencies in detail. This analysis produced no main effect of addressee, $\beta = 0.37$, $SE = 0.21$, $z = 1.75$, $p = .080$. If anything, this marginally significant finding implies a tendency of greater support for the refugee-integration project than for the immigration-stop project. There was again no main effect of dispersion location, $\beta = -0.24$, $SE = 0.21$, $z = -1.14$, $p = .255$. Again, and contrary to our initial predictions, there were also no differences regarding differential return rates between the locations for the letters to the immigration-stop project or the refugee-integration project, that is, the interaction of addressee and dispersion location was also not significant in Study 2, $\beta = 0.32$, $SE = 0.43$, $z = 0.74$, $p = .457$. In other words, there was no difference between returned letters

Table 2. Study 2: Differential letter return rates

Addressee (project)	Location where letters were dispersed	
	East German rural area	West German rural area
Immigration stop	23	15
Refugee integration	29	26

Note. Total $N = 400$ dispersed letters. Numbers of returned letters in the table also represent percentage per group (because $n = 100$).

for the refugee-integration project and immigration-stop project for the West German rural areas, $\beta = 0.55$, $SE = 0.32$, $z = 1.69$, $p = .090$ (this coefficient was also recalculated and analyzed based on the delta-method), and for the East German city, $\beta = 0.23$, $SE = 0.28$, $z = 0.83$, $p = .406$ (this coefficient was part of the estimated log-linear model). We also compared return rates between the dispersion locations, with negative coefficients reflecting a larger number of returned letters for the East German rural area. Similar to Study 1, there was no evidence for differences in the return rates between the dispersion locations for the letters to the immigration-stop project, $\beta = -0.43$, $SE = 0.33$, $z = -1.29$, $p = .198$ (this coefficient was part of the estimated log-linear model), or in the refugee-integration project, $\beta = -0.11$, $SE = 0.27$, $z = -0.40$, $p = .686$ (this coefficient was also recalculated and analyzed based on the delta-method). These specific contrasts were again also checked by means of χ^2-tests based on returned and non-returned letters. Again, such a different approach did not yield different results for return rates between the projects in the West German areas, $\chi^2(1, N = 200) = 3.71$, $p = .054$, $w = 0.14$, or in the East German areas, $\chi^2(1, N = 200) = 0.94$, $p = .333$, $w = 0.07$. Moreover, there were no differences concerning return rates between the dispersion locations for the letters to the immigration-stop project, $\chi^2(1, N = 200) = 2.08$, $p = .149$, $w = 0.10$, or the refugee-integration project, $\chi^2(1, N = 200) = 0.23$, $p = .635$, $w = 0.03$.

Discussion

In Study 2, we again applied the lost letter technique to examine potential differences between West and East Germans in acts of helping as behavioral indicators of refugee-immigration-related positions, now in more rural areas. Overall, and deviating from the results revealed in Study 1, there were no differences in return rates for the two different project addressees. If anything, yet only descriptively, more letters were returned for the refugee-integration project versus the immigration-stop project from both dispersion locations, that is, rural areas in West and East Germany. These null results could, to some extent at least, be due to the low overall return rates from both dispersion locations in East and West Germany. Thus, the chance of detecting any existing differences in support for the refugee-integration project might have been reduced by a potential floor effect.

In sum, Study 2 yielded no evidence for stronger support for the immigration-stop project over the refugee-integration project in rural East German letter-dispersion locations. The failure to find evidence for weaker support of refugee integration in East (vs. West) Germany is consistent with the findings from Study 1, which found greater support for the refugee-integration (vs. immigration-stop) project in both East and West Germany.

Exploratory Pooled Analysis

We also conducted an overarching log-linear analysis, in which we pooled the data from both studies, to include a formal test of the difference between the dispersion environment factor (urban vs. rural), the three-way interaction, 2 (addressee: refugee-integration project vs. immigration-stop project) × 2 (dispersion location: East vs. West Germany) × 2 (urbanity: rural vs. urban), and all potential two-way interactions. In these series of models, all variables were dummy-coded with addressee (immigration stop = 0; refugee integration = 1), location (East = 0; West = 1), and urbanity (urban = 0; rural = 1). First, the three-way interaction coefficient was not significant, $\beta = 0.40$, $SE = 0.53$, $z = 0.75$, $p = .452$. Second, all two-way interaction coefficients were found to be non-significant: Addressee × Urbanity, $\beta = 0.08$, $SE = 0.25$, $z = 0.30$, $p = .762$; Urbanity × Location, $\beta = -0.22$, $SE = 0.25$, $z = -0.85$, $p = .396$; and Addressee × Location, $\beta = -0.36$, $SE = 0.26$, $z = -1.39$, $p = .166$.

Thus, it turned out that the main effects model was sufficient to explain cell frequencies in the multiway contingency table. The results from the main effects model indicate that significantly more letters were returned for the refugee-integration project than for the immigration-stop project, $\beta = 0.61$, $SE = 0.12$, $z = 4.88$, $p < .001$. This finding was expected from the separate results from Studies 1 and 2. Moreover, significantly less letters were returned from rural (vs. urban) regions, $\beta = -0.70$, $SE = 0.13$, $z = -5.55$, $p < .001$. Finally, there was no difference between East versus West Germany, $\beta = -0.09$, $SE = 0.12$, $z = -0.78$, $p = .438$.

General Discussion

Across two field studies we employed the lost letter technique (see Milgram et al., 1965) as an unobtrusive, non-reactive field paradigm to investigate acts of immigration-related prosocial behavior in West and East Germany. The present studies were conducted in urban areas (Study 1)

and rural areas (Study 2). Previous surveys suggested more prejudice against ethnic out-groups and xenophobic attitudes (Decker, Kiess, & Brähler, 2016; also see Küpper et al., 2019; Yendell et al., 2016) and lower levels of intergroup contact with refugees in East (vs. West) Germany (Ahrens, 2017). Also, sociological analyses of crime rates revealed substantially higher numbers of xenophobic attacks in East Germany than in West Germany (Benček & Strasheim, 2016). Based on these findings, we predicted that return rates for an immigration-stop (vs. refugee-integration) project would be higher in the East than in the West. However, this was not the case in either of the present two studies or in the exploratory analysis pooling the data from both studies: In Study 1, substantially more letters arrived for a refugee-integration project as compared to an immigration-stop project from a West German and an East German city, indicating tendencies to facilitate refugee integration over supporting a project aimed at preventing immigration. In Study 2, there were no differences between experimental conditions, again not providing any indication for less favorable positions on refugee integration in East versus West German more rural areas.

An exploratory analysis, in which we merged the data from both studies, revealed two main effects: Overall, more letters arrived for the refugee-integration project than for the immigration-stop project, and more letters arrived from urban than from rural areas. There was no evidence for interaction effects. The low overall return rate for letters found in Study 2 as compared to Study 1 is surprising given that previous analyses indicate more helping behavior in non-urban as compared to urban areas. However, we note that the relationship between urbanity and levels of helping behavior does not appear to be linear (Steblay, 1987). One factor that may have contributed to the low return rates in Study 2 is that this study was conducted at the end of a winter period and thus the weather might have been worse than for Study 1 that was conducted in the spring of the previous year. However, this consistency for both dispersion locations in Study 2 and the stark discrepancy from Study 1 cannot easily be explained exclusively by thermic differences.

There were no main effects of letter dispersion location regarding the letter return rates in Study 1 or in Study 2 or in the integrative analyses with pooled data from both studies. While earlier findings from laboratory experiments suggest less prosocial behavior and solidarity in East than in West Germany (Brosig-Koch, Helbach, Ockenfels, & Weimann, 2011), we did not find support for such an asymmetry. If anything, descriptively more letters were returned from the East versus West German dispersion locations.

There might also be a fallacy concerning the public perception of immigration-related attitudes in East versus West Germany: Because there are more instances of xenophobic attacks in East than in West German federal states (e.g., Benček & Strasheim, 2016), one might be prone to conclude that the East (vs. West) German population is more opposed to facilitating refugee integration. It has recently been argued that negative (vs. positive) acts, experiences, or instances are more salient because positive instances are more similar than negative ones (see Alves, Koch, & Unkelbach, 2017). Such valence-related asymmetries may contribute to the perception that residents of East Germany are less willing to support refugee integration and more inclined to abet anti-refugee action. Our results suggest that such perceptions may be mistaken. It could be the case that the self-reported attitudes in East and West Germany against members of ethnic out-groups, refugee migration, and refugee integration may be weak predictors of residents' actual prosocial behavior. It is possible that self-reported attitudes found in previous research in East and West Germany may translate only to some extent into supportive behavior in the field.

Furthermore, previous self-report findings in West Germany may reflect, at least in part, perceived social desirability or anti-prejudice norms regarding xenophobia within the community or among neighbors, friends, and colleagues. This might result from pluralistic ignorance, that is, the private rejection concerning specific norms or attitudes, but their overestimation in one's community or among close others' attitudes (see Katz & Allport, 1931).

Additionally, our results complement previous research suggesting that the relation between positive attitudes and behaviors, on the one hand, and negative attitudes and behaviors, on the other hand, is partial rather than perfectly inverse. Accordingly, intergroup hostility is not a perfect (negative) predictor of intergroup helping behavior (see Pittinsky et al., 2011; Stürmer et al., 2013).

Limitations

As with all lost letter studies and most field studies in general, there are some limitations of the present studies. For example, we have no information about the individuals who posted a letter or how many individuals passed a lost letter without lifting and posting it. Also due to the nature of the lost letter technique, the finders' motives for posting a letter are not always clear. Besides the typically assumed motive that return rates reflect benevolent attitudes toward a favored addressee, in the present context, for example, a poster of a letter for a refugee-integration project might have wanted to contribute to a positive image of the (German) in-group by restoring its potentially negative, xenophobic image (e.g., Hopkins et al., 2007). Further research should thus investigate the extent to which posting a lost letter may be more or less altruistic versus egoistic or concerned with the in-group's image (see Siem & Stürmer, 2019).

Additionally, we do not know how many finders who decided (not) to post a letter had a migration background themselves. One might assume that finders with a migration background would not post a letter for an immigration-stop project because it would arguably discriminate against their in-group. The proportion of citizens with a migration background is higher in West versus East German federal states. This diverging proportion in West versus East Germany, however, cannot explain the present results (see Asbrock et al., 2014). If this were a strong contributing factor, the return rates would have been very different from the ones observed in the present studies, namely, with fewer letters for the refugee-integration project from the East German dispersion locations.

Helping behaviors can be distinguished in several ways (e.g., Pearce & Amato, 1980). Posting an apparently lost letter is a relatively spontaneous, informal act of helping behavior that is indirect since the finder does not experience direct contact with an out-group member, and not very costly for the finder. Future research may determine the generalizability of the present findings to other, more direct, and more costly forms of helping like direct donations or volunteering in a refugee accommodation.

One of the addressees was a project on "immigration stop" and did not necessarily refer exclusively to *refugee* immigration. However, concerning the current political debate in Germany and western Europe in general, almost all recent immigration stop-movements concern and refer to the intake of asylum seekers and refugees. Additionally, this alleged asymmetry regarding the addressees cannot explain why the return rates for both projects did not differ between the two areas of letter distribution.

Outlook

The present findings challenge common views about biases against refugees in Germany, especially regarding differences between East and West Germany (also see Czymara & Schmidt-Catran, 2016). Future research should examine possible dissociations between self-report measures and actual helping and support for out-groups, including refugees, as well as the underlying processes.

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Open Data
We pre-registered our hypotheses (see https://osf.io/we7c6/).

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Appendix

Deviating from the optional analysis specified in the pre-registered study plan of Study 1, we did not rate the state of the letters that were returned because almost all letters arrived in good shape. In addition, we report further analyses that deviate from both pre-registered study plans: First, the plan for Study 2 included R code for a χ^2-test that tested the goodness-of-fit of all returned letters to a uniform distribution across conditions. Indeed, such a test would have been based on the overall number of *returned* letters. The pre-registered plan for Study 1, however, implied a different test based on a 2×4 contingency table with rows denoting to either returned or non-returned letters and columns denoting the four experimental conditions. This χ^2-test has the same number of degrees of freedom as compared to the goodness-of-fit test described above, which led us to enter the wrong test in the R code for the pre-registration of Study 2. Both tests are clearly informative with respect to our research question, but only the second one had adequate statistical power. We thus decided to report the initially planned test based on the 2×4 contingency table. In addition, the erroneously chosen goodness-of-fit test in the R code reported in the plan for Study 2 did not yield different conclusions, and we report this additional result in the Results section of Study 1. Finally, for reasons of consistency, we used a log-linear analysis also for the specific contrasts that were planned based on χ^2-tests. Again, conclusions drawn from results revealed in the planned analyses (as reported in Results section of Study 2) do not deviate from the ones reported in the text.