Social norm enforcement in ethnically diverse communities

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Edited by Karen S. Cook, Stanford University, Stanford, CA, and approved February 5, 2018 (received for review October 20, 2017)

Recent waves of immigration to Western nations have fueled a debate over the consequences of ethnic diversity for social cohesion. One prominent argument in this debate holds that diversity is detrimental to trust and cooperation because individuals in heterogeneous communities face difficulties in enforcing social norms across ethnic lines. We examine this proposition in a field experiment involving real-life interactions among residents of multiethnic German neighborhoods. We find significant ethnic asymmetries in the pattern of norm enforcement: Members of the majority “native” German population are more active in sanctioning norm violations, while ethnic minorities are more likely to find themselves the target of sanctions. We interpret these results in light of prevailing status inequalities between ethnic minorities and the native majority. We further calculate that, as a result of ethnic discrimination, social control is likely to rise in communities with moderate minority population shares.

Results from 3,249 trials reveal significant ethnic differences in the propensity between ethnic minorities and members of the majority to engage in a widely understood deviant act (littering). We conducted near metro entrances in ethnically diverse German neighborhoods. The intervention exposed passersby to a professional actor engaged in a widely understood deviant act (littering). We systematically vary the ethnicity and gender of our confederates and record the passerby’s reaction to the norm violation, focusing in particular on the use of verbal reprimands. This design allows us to examine two key determinants of the overall level of social control in diverse communities: (i) differences in enforcement propensity between ethnic minorities and members of the majority “native” population and (ii) differences between minorities and natives in the likelihood of being sanctioned for norm transgressions.

Significance

How does ethnic diversity influence the maintenance of social norms in complex, Western societies? We provide evidence from a natural field experiment examining reactions to norm violations in multiethnic German neighborhoods. We uncover asymmetric patterns of norm enforcement in interethnic encounters: “Native” Germans are more active in sanctioning norm violations, while ethnic minorities are more likely to be targeted for sanctions. We link these dynamics to prevailing status inequalities between minorities and natives in German society.

Author contributions: F.W. and N.Z. designed research, performed research, analyzed data, and wrote the paper.

The authors declare no conflict of interest.

This article is a PNAS Direct Submission.

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This article contains supporting information online at www.pnas.org/lookup/suppl/doi:10.1073/pnas.1718309115/-/DCSupplemental.

Published online February 26, 2018.
to take account of the social positioning of ethnic groups (14) in shaping sanctioning decisions. Finally, this paper sheds light on social norms enforcement in a real-life setting. A handful of studies have examined how sanctioning patterns are influenced by group identity (20, 26–30) and ethnic considerations (7), using experimental games. However, Balafoutas and Nikiforakis (31) and Balafoutas et al. (32) show that sanctioning behavior differs substantially between the laboratory and the field, raising questions of external validity (33). Our design allows us to avoid these concerns by examining individual decisions in their natural context, free from selection and experimenter demand effects (34, 35).

Setting and Research Design

We investigate reactions to violations of a widely held social norm against littering (12, 31, 32, 36). The study consists of three distinct parts: (i) a preexperimental questionnaire to establish whether our research targets differ in their understanding of littering norms, (ii) a field-experimental intervention whereby passersby are exposed to public littering, and (iii) a postexperimental questionnaire to gather detailed information on nativity, citizenship, and ethnic identification. The three parts of the study involved different samples of research subjects, but were all conducted in the same ethnically diverse neighborhoods in the cities of Bonn and Cologne, Germany (see Materials and Methods for more details).

Experimental Protocol. The experimental intervention was staged at entrances to various metro stations in our research areas. As shown in Fig. 1, confederates were stationed about 2 m away from a public trashcan while holding a disposable coffee cup. Confederates were instructed to choose as their “observer” the next unaccompanied pedestrian walking toward the experimental area. As soon as this observer approached, the confederate was instructed to carelessly throw the cup on the ground in the general vicinity of the trashcan, thereby demonstrating an open disregard for the antilittering norm.

A research assistant stood ~5 m away from the confederate and discreetly recorded the reaction of the observer using a smartphone app. Research assistants could freely record a range of reactions including direct verbal sanctions, dirty looks, mumbled complaints, or attempts to pick up the cup. However, since subtle expressions of disapproval such as glances or headshakes can be ambiguous and fleeting, our main variable of interest is whether the observer directly confronted the confederate by issuing a verbal reprimand. In SI Appendix, Fig. S2, we show that our main results are robust to coding a full range of negative reactions.

Research assistants were additionally instructed to collect information on the gender, approximate age, and height of the observer and to make their best guess as to whether the observer has a “migration background” (migrationshintergrund). This legal designation, which is distinct from citizenship or country of birth, effectively encompasses first- to third-generation immigrants to Germany. While it is admittedly difficult to visually distinguish Northern and Eastern Europeans from native Germans defined in this manner, “visible” ethnic minorities from Turkey, Southern Europe, Latin America, the Middle East, Africa, and Asia are largely covered by this category. SI Appendix, section 5 provides evidence from our postexperimental survey demonstrating that our coding of migration background closely matches information on the precise ancestry of individuals in our study locations.

Experimental Conditions. To play the role of confederates, we recruited actors who could also be clearly identified as either native German or of migration background (see Materials and Methods for further details. Actor profiles are provided in SI Appendix, Fig. S1). We thus study four types of encounters: (i) native observers and native actors, (ii) native observers and minority actors, (iii) minority observers and native actors, and (iv) minority observers and minority actors. Relative frequencies are displayed in Table 1. A total of 66.4% of observers for whom ethnicity could be confidently assessed were classified as native, and 62.3% of all interventions were conducted by native confederates. However, native observers were no more likely than minority observers to interact with a native confederate, suggesting that our confederates did not select passersby based on visible criteria. Additional balance checks are provided in SI Appendix, Table S2.

Results

A Widely Shared Norm Against Littering. We first check whether popular understanding of the antilittering norm is consistent across our four experimental conditions. Here, we draw upon data from our preexperimental survey in which respondents were presented with a visual depiction of a confederate throwing trash in a public space and asked about the extent to which they would be bothered by this situation (0 = “not at all,” 0.5 = “somewhat,” 1 = “very much”). The overwhelming majority of survey respondents (84.6%) stated that they would be bothered very much by the act of littering. We find no significant differences in antilittering attitudes between native and minority respondents [$n = 227$, $\chi^2(2) = 3.32$, $P = 0.19$, $\chi^2$ test]. Moreover, as shown in Fig. 2A, the identity of the confederate does not affect judgments about the acceptability of littering. Finally, a majority (55.5%) of respondents stated that they would issue a verbal sanction if confronted with a similar situation. Again, we find no statistically significant differences with respect to the ethnicity of the respondent [$n = 227$, $\chi^2(1) = 0.08$, $P = 0.78$, $\chi^2$ test].

While our survey results could be construed as “cheap talk,” they also indicate that most respondents (irrespective of ethnic considerations) both are aware of the antilittering norm and consider verbal sanctions to be a legitimate response to violations. These results thus provide assurance that behavioral differences in the field experiment capture variation in the willingness to sanction norm breakers, as opposed to different understandings of the norm itself.

Basic Description of Sanctioning Behavior. Although the majority of survey respondents indicated a willingness to verbally sanction norm violations, only 10.2% of experimental interventions actually resulted in a verbal reprimand. This number is comparable to results from previous field experiments using similar
Table 1. Type and frequency of encounters

| Encounter | No. of trials | %    |
|-----------|---------------|------|
| Native observer, native confederate | 1,348 | 41.49 |
| Native observer, minority confederate | 810  | 24.93 |
| Minority observer, native confederate | 676  | 20.61 |
| Minority observer, minority confederate | 415  | 12.77 |
| Total   | 3,249         | 100  |

interventions (12, 31, 36). We also observe a gender difference in sanctioning behavior: Whereas 12.3% of violations observed by women were sanctioned, the enforcement rate falls to 8.1% in interventions observed by men \( n = 3,249, \chi^2(1) = 16.43, P < 0.001, \chi^2 \) test]. Finally, we note a higher tendency to react to norm violations in trials involving older passersby \( n = 3,249, \chi^2(5) = 167.91, P < 0.001, \chi^2 \) test].

Native Observers React to Violations More Frequently Than Minority Observers. Averaging across confederates, native observers reacted to 12.6% of interventions, compared with 5.3% for minority observers \( n = 3,249, \chi^2(1) = 42.18, P < 0.001, \chi^2 \) test]. Fig. 2B shows that this difference in baseline enforcement propensities holds across both native and minority confederates. When confronted with native confederates, native observers sanction 8.7% of the time, compared with 3.9% for minority observers \( n = 2,024, \chi^2(1) = 16.02, P < 0.001, \chi^2 \) test]. An even larger gap obtains when we consider reactions to minority confederates. Here, native observers sanction 19.1% of the time, compared with 7.7% for minority observers \( n = 1,225, \chi^2(1) = 27.69, P < 0.001, \chi^2 \) test]. SI Appendix, Table S3 provides corroborating results from random-effects logistic regression models, which take account of the crossed matching in our design between confederates and research assistants. SI Appendix, section 5 also presents evidence from Monte Carlo simulations showing the robustness of our findings to potential ethnic misclassification of observers.

Minority Confederates Elicit More Frequent Reactions Than Native Confederates. Fig. 2B also shows that observers apply conditional enforcement strategies depending upon the ethnicity of confederates. Averaging across all observers, 7.1% of trials involving native confederates resulted in a verbal reprimand, compared with 15.3% of trials involving minority confederates \( n = 3,249, \chi^2(1) = 56.23, P < 0.001, \chi^2 \) test]. Again, this difference remains when we focus separately on observer subgroups. Native observers sanction minority confederates significantly more often than native confederates \( [19.1\% \text{ vs. } 8.7\%, n = 2,158, \chi^2(1) = 50.22, P < 0.001, \chi^2 \) test], and the same holds true for minority observers \( [7.7\% \text{ vs. } 3.9\%, n = 1,091, \chi^2(1) = 7.63, P = 0.006, \chi^2 \) test]. Further statistical and robustness tests are provided in SI Appendix, section 5 and Table S3.

Similar Enforcement Rates in Native–Native and Minority–Minority Encounters in Combination with Asymmetric Sanctioning Across Ethnic Lines. We observe that the rate at which natives sanction natives is statistically indistinguishable from the propensity of minorities to sanction minorities \( n = 1,763, \chi^2(1) = 0.38, P = 0.54, \chi^2 \) test]. On the other hand, natives sanction minorities at dramatically higher rates than minorities sanction natives \( [19.1\% \text{ vs. } 3.9\%, n = 1,486, \chi^2(1) = 80.53, P < 0.001, \chi^2 \) test]. These results have important implications for our explanation of enforcement patterns discussed below.

Discussion

Explaining Ethnic Variation in Enforcement Patterns. Prevaling research on norm enforcement in diverse communities has argued that sanctioning is more likely to occur within, rather than across, ethnic boundaries (5–7). This result is linked to the sanctioning advantages conveyed by ethnic social networks that help individuals to identify defectors and communicate reputational information. We note, however, that these benefits accruing to social networks are absent in the stranger-to-stranger encounters we study. Thus, our experimental design ensures that informational and reputational considerations cannot account for the enforcement patterns we document.

Instead, our results are consistent with an alternative framework focusing on the role of status inequalities in sanctioning decisions (20). Previous studies show that high status is positively associated with more assertive behavior (18, 37–39) and that lower-status targets are more likely to elicit social sanctions (19, 21). In many European societies including Germany, immigrants and visible ethnic minorities tend to occupy the lower rungs of the status hierarchy (16, 17, 40–42). Additionally, status differences based on ethnicity are often overlaid upon minority disadvantages in language proficiency, educational attainment, and so forth.
and labor market participation (13, 15, 43, 44), which we take
as further evidence of marginalization. These dynamics imply
that natives should be more vigilant when confronting minority
violators, while minorities should behave more leniently toward
native transgressors. By contrast, in native–native and minority–
minority interactions where status differentials are equalized, we
should expect similar enforcement levels to prevail. The enforce-
ment patterns we observe in the field are fully consistent with
these propositions.

Implications for Social Control at the Community Level. We can
use these observed enforcement patterns to calculate the aggre-
gate level of social control—defined as the probability that an
“average” resident is sanctioned for norm violations—for com-
unities with varying minority population shares. To do so, we
weight the likelihood of all possible interactions (native observes
native, native observes minority, and so on) by the associated
enforcement rate observed in the field. More formally, we define
\( p_{ij} \in [0, 1] \) as the “interaction probability” that a member of
group \( i \in \{ \text{Native, Minority} \} \) observes a norm violation com-
mited by a member of group \( j \in \{ \text{Native, Minority} \} \). If we assume
that individuals commit norm violations at some constant rate
which is independent of ethnicity, then the interaction probabili-
ties can be calculated from the respective proportions of natives
and minorities within any community. We define \( e_{ij} \in [0, 1] \) as
the conditional probability that a member of \( i \) enforces a norm
against a member of \( j \). The aggregate level of social control \( P \)
can therefore be calculated as

\[
P = \sum_{i} \sum_{j} p_{ij} e_{ij},
\]

Eq. 1

Fig. 3 plots the predicted level of social control for the pop-
ulation shares and sanctioning rates observed in our experiment.
Across all 3,249 trials in which ethnicity was confidently assessed,
we coded 33.6% of passersby as having a migration background.
This share is indicated by the vertical dashed line in Fig. 3.
Given our observed enforcement rates, we predict that an aver-
age transgressor will be sanctioned 9.76% of the time (denoted
by the red diamond).

Fig. 3 is also useful for illustrating the comparative statics
of Eq. 1: Holding enforcement rates constant, we can study the
effect of shifts in the relative size of the native and minority pop-
ulations on aggregate social control. Compared with a homoge-
nous native community, we predict that social control increases
in the presence of minorities (due to their higher likelihood of
being sanctioned). Importantly, however, this tightening of social
control comes at the cost of a greater ethnic divide between
enforcers and their targets. This dynamic is illustrated by the
solid surfaces in Fig. 3 which decompose aggregate social control
into its constituent components. At the highest levels of social
control, the majority of sanctions are imposed by natives against
ethnic minorities. The model thus highlights an uneasy trade-
off between discrimination and sanctioning capacity in diverse
communities.

Of course, the model we present here paints a simplified
picture of the relationship between ethnic diversity and norm
enforcement at the community level. A more dynamic version
might model \( p_{ij} \) as a function of population shares or relax the
assumption of random interaction probabilities. For example,
natives living in diverse areas may mix more readily across eth-
nic lines and exhibit less discrimination compared with natives
in areas with few minorities (45). For present purposes, the static
model suffices to illustrate the importance of asymmetric sanc-
tioning patterns in shaping the overall enforcement rate in mul-
tiethnic communities.

Conclusion

This study used a natural field experiment to examine the
association between ethnicity and social norm enforcement in
multiethnic German neighborhoods. We find evidence of asym-
metric enforcement patterns: Natives are more active in sanc-
tioning norm violations, while ethnic minorities are more likely
to find themselves the target of sanctions. We link these dynam-
ics to status inequalities between minorities and the majority
native population. We also show that, as the result of such asym-
metries, social control tends to increase in both frequency and
bias in communities with a moderate-size ethnic minority
population.

One important implication of this study is to highlight the dis-
tinction between two conceptions of ethnic diversity (4, 24). One
approach (embodied in ELF measures) is to interpret diversity
as the probability that two randomly drawn individuals from a
population will belong to the same ethnic group (23). An alter-
native approach (often implicit in discussions of diversity) is to
define diversity in terms of the size of the nonnative popula-
tion. The choice of definitions is important, as it pushes scholars
to focus on different mechanisms linking diversity to outcomes
of interest. The first interpretation draws attention to forms of
social solidarity rooted in cultural and ethnic similarity (1),
while encouraging us to examine relations between groups in a
“color–” and “status-blind” way. In contrast, the second approach
highlights the historical and institutionalized inequalities separating natives and ethnic minorities and their associated consequences for social cohesion (4, 46).

While many prominent studies of ethnic diversity have primarily taken a color-blind approach (1–3, 5, 47, 48), our work shows that much can be gained by focusing on the hierarchies and inequalities inherent in ethnic relations. The conjecture that social control increases with diversity is not obvious and even runs counter to evidence suggested by previous studies (8, 22). The reasoning behind this result becomes apparent only once we take account of asymmetric sanctioning patterns in native–minority interactions. Of course, it remains an open question whether discriminatory reactions to norm violations actually bring about greater norm compliance. Nonetheless, the present study has shed more light on the dynamics of norm enforcement in multietnic Western societies.

Materials and Methods

IRB approval for the study was granted by the Ethics Commission of the University of Bonn. As is standard in natural field experiments of this type, we obtained a waiver of informed consent.

Setting. The field experiment and surveys were conducted in the vicinity of the Bad Godesberg train station in Bonn, between the Kalk-Post and Kalk-Kapelle U-Bahn stations in Cologne, and also in the vicinity of the Venloer Strasse U-Bahn station in the Ehrenfeld section of Cologne. The selection of locations ensured that the presence of visible minorities (i.e., our confederates) would not arouse curiosity or suspicion and that we would be able record the reaction of an adequate number of minority passersby.

Information on the demographic composition of our local research areas comes from our postexperimental survey. A total of 39.5% of respondents for whom we have complete data are coded as having migration background, defined as either (i) being born outside of Germany or (ii) having at least one parent born outside of Germany. In addition to being diverse in terms of the size of the minority population, our research areas are also diverse in terms of the number of ethnic groups represented. First- and second-generation Turks (the largest minority ethnic group in Germany) constitute only 24.6% of “nonnative” respondents in our sample. A further 27.0% of respondents have roots in countries in the Middle East and North Africa. The remaining 48.4% of minority respondents claim ancestry from over 25 different countries.

Field Experiment. Interventions were staged Monday through Saturday from 3:00 PM to 6:00 PM over the period March 21 to April 25, 2017. Teams of two (a confederate and a research assistant) simulated the act of littering from 3:00 PM to 6:00 PM over the period March 21 to April 25, 2017. Survey enumerators worked in teams of two. To increase the likelihood of sampling nonnative German speakers, each survey team included at least one bilingual German/Turkish or German/Arabic speaker.

Potential survey respondents were solicited using a randomization procedure. Specifically, our survey app instructed the interviewers to let a random number of people pass before approaching the next potential respondent. Complete questionnaire data from 227 individuals were collected in the preexperimental survey and from 319 individuals in the postexperimental survey.

Data Availability. Replication data and code can be accessed at doij.org/10.17605/OSF.IO/6JMN2.

Acknowledgments. We thank Kamal Abbadi, Aya Alahrachi, Mustapha Berdahoum, Ayse Celik, Carina Derikartz, Betül Erogul, Dietrich Naplontek, Viktoria Oellers, Ogulcan Ozturk, Lea Stentenbach, Christian Vollmer, Marie von Oeppen, and particularly Tobias Werner for excellent research assistance. Confederate roles were played by Loxy Diercks, Florentin Eikelmann, Annalena Kayser, Gina Makurat, Zühre Nur, Stefanos Triantafillou, and Reza Vaghef. Valuable feedback was provided by Maria Abascal, Amelie Aidenberger, Delia Baldassarri, Anna Baumert, Diego Gambetta, Johanna Gereke, David Hughes-Jones, Merlin Schaeffer, Max Schaub, and conference participants at Bocconi University, Universitat de Barcelona, and the Max-Planck-Institute for Research on Collective Goods. Financial support of the Max-Planck-Society for the Max-Planck Research Group “Mechanisms of Normative Change” is gratefully acknowledged.
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