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Violence, Street Code Internalisation and the Moderating Effect of the Status-Violence Norm in German Schools

This study examines Elijah Anderson's (1999) proposition that violence is more likely in contexts that reward violence with status. However, people react differently to this so-called status-violence norm depending on their code internalisation. We address this interplay between code internalisation and the status-violence norm by analysing violence in 39 German schools, with 2,635 students. We make use of network data on status and violence reports in the large school dataset 'Friendship and Violence in Adolescence'. Our school fixed-effect models account for previous shortcomings, namely heterogeneity between contexts and the selection of people into contexts, as they only compare students of the same school with each other. We find that students who have strongly internalised the code are more prone to violence than students who have not internalised this code. More importantly, our results show that students with a strong code are especially violent when the context rewards violence with status. Students who have not internalised this code are not affected by context variations.

Keywords: code of the street, social network analysis, norm internalisation, school fixed effects, school violence, status, subculture of violence, model of frame selection

Gewalt, Street Code Internalisierung und der moderierende Effekt der Status-Gewalt Norm an deutschen Schulen

Die vorliegende Studie untersucht Elijah Anderson's These (1999), dass gewalttätiges Verhalten in Kontexten zunimmt, in denen Gewalt durch Status belohnt wird. Personen reagieren anhand ihrer sogenannten Code Internalisierung unterschiedlich auf die kontextuelle Gewalt-Status Norm. Wir untersuchen diesen Zusammengang indem wir Gewalt an 39 deutschen Schulen mit 2 635 Schülerinnen und Schülern analysieren, und nutzen selbstberichtete soziometrische Angaben zu Status- und Gewaltnominierungen der Schulstudie "Freundschaft und Gewalt im Jugendalter". Probleme vorangegangener Studien, vornehmlich Heterogenität zwischen Kontexten und Selektion, adressieren wir mit Schul-Fixed-Effekts, welche nur die Schülerschaft derselben Schule miteinander vergleicht. Es zeigt sich, dass Schüler, die den Code internalisiert haben, häufiger gewalttätig sind als Schüler, die diese Werte nicht verinnerlicht haben. Darüber hinaus zeigen unsere Ergebnisse, dass insbesondere Schüler mit hoher Internalisierung vermehrt gewalttätig sind, wenn ein Kontext Gewalt mit Status belohnt. Schüler, die den Code nicht verinnerlicht haben, sind von Kontextvariationen nicht betroffen.

Schlagwörter: Code of the Street; Soziale Netzwerkanalyse; Norminternalisierung; Schul Fixed-Effects; Schulgewalt; Status; Subkultur der Gewalt; Model der Frame Selektion

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1. Introduction

Elijah Anderson (1999) describes, in his ethnographic study *Code of the Street*, the social organization of public life in Germantown Avenue, Philadelphia. In this neighborhood characterized by poverty and violence, respect can be attained through exhibiting jewelry, promiscuity, and violence. Evidence that status can be gained by acting violently is also found in recent studies using a social network analytical approach (e. g. Kreager, 2007). These studies' relational perspective focuses on connections and interdependencies between actors. Hereby they acknowledge the relational nature of violence, which is a relation between an offender and a victim, as well as status, which is ascribed to one actor by another.

Besides recognizing this relational nature of violence and status, we follow Beier (2016) and add to the Code of the Street literature a more detailed micro-foundation by using the Model of Frame Selection. Anderson describes the Code of the Street as a set of informal rules that govern public interactions, especially violence. Following his descriptions, we assume that violence will increase with the internalization of the code² as well as the spread of street culture. In our study, we focus on one particular aspect of street culture, namely the extent to which one can gain status by engaging in violent behavior, the so-called status-violence norm. Code internalization and the status-violence norm are interrelated; individuals with high code internalization will increase their violent behavior as status can be gained through it. On the contrary, individuals with low code internalization will not offend violently in low status-violence conditions but are violent where status can be gained through it. The action-theoretical foundation of the Model of Frame Selections allows a clarification of the conditions under which the interaction between code internalization and the status-violence norm leads to violence.

To correspond as closely as possible to the theoretical explanations, we address the often overlooked challenges of capturing street culture by the aggregation to the superordinate level, heterogeneity between settings, and selection into settings. The literature on the Code of the Street usually aggregates participants' responses to questions regarding code internalization to the superordinate level, such as neighborhoods. Here it becomes possible that the units of analysis are too large for an approximation of the behavior setting that an actor can capture cognitively. Heterogeneity describes that settings like neighborhoods, which in previous studies were most often used as aggregation units for street culture, vary on multiple dimensions and are hardly comparable. Statistically, each unconsidered dimension introduces bias and makes it challenging to attribute a difference in violent behavior to a particular cause. Selection describes that actors and settings do not come about by chance, but by processes of self-selection and social selection. Neglecting these challenges makes it impossible to investigate whether the proposed interplay between code internalization and street culture, or other aspects, like the selection of people into different settings or (un)observed heterogeneity, lead to the observed outcome, here violence.

To address the interplay between code internalization and the status-violence norm, we investigate school violence and use data from the German school study "Friendship and Violence in Adolescents" (Kroneberg, Ernst & Gerth, 2016). This data includes most secondary

² Throughout the study, we use the term "code internalization" to refer to the individual internalization of the "Code of the Street" and the term "street culture" to refer to "The Code of the Street" on a contextual level.

schools³ of the sampling area. By using the study's network data, which are reports about the relationships with other students of the same grade, we analyze violent relationships as well as status ascriptions between students. These provide a rich account on the interplay between violence and status, and acknowledge their interpersonal nature.

To address the abovementioned issues of selection of people into contexts and (un)observed heterogeneity between contexts, we apply school fixed-effects regressions, which are within-school estimators that only compare students of the same school with each other.

In line with our expectations, we find that higher code internalization increases violent offending. Moreover, we find that the code internalization interacts with the prevalence of street culture. Students with a strong code internalization are more violent in classes with a prevalent street culture than in contexts that do not reward violence with status. In contrast to our expectations, the level of violence of adolescents who have not internalized the code is context insensitive. These students are not violent regardless of the context.

2. Theory and Literature

2.1 Code of the Street

Based on his ethnographic work in Philadelphia's inner city, Anderson identifies a code of informal rules that guides interpersonal and public behavior, especially violence (Anderson, 1999, p. 33). At the center of this Code of the Street stands the assumption that everybody strives for respect. While individuals from the middle and upper class achieve these goals through mainstream means such as good jobs, money, property, and education, social and economic restrictions hinder disadvantaged people from achieving respect by the same means. Disadvantaged individuals (in disadvantaged neighborhoods) resort to other means, such as dealing drugs, promiscuity (for males), or violence to gain respect, and internalize the code which legitimizes those behaviors. However, Anderson emphasizes that not all disadvantaged individuals adopt these values, and differentiates between "decent" and "street" orientation (Anderson, 1999, p. 35). Herein, Anderson breaks with the assumption that disadvantage unconditionally leads to the adoption of violent norms or violence per se. While decent families share "mainstream" values, take responsibility, value hard work and self-reliance, and are willing to sacrifice for their children, "street" families tend to be more disorganized and negligent. These children are learning by example the values of toughness and self-absorption (Anderson, 1999, p. 47).

Of particular interest to this study is Anderson's description of violent behavior. Not only does he find that individuals who have internalized street values tend to be more violent, but also that street culture influences people's behavior independent of their code internalization. Due to this, decent actors mimic the violent behavior of street people to avoid future victimization. Herein, Anderson shows that people will become violent even if they have not internalized the code themselves.

Following Anderson's ethnographic study, quantitative studies were able to corroborate his findings. Violence is more likely for those actors who have internalized the code. The internalization also mediates the relationship between socio-demographics and violence, thus

³ Besides special needs schools and Gymnasiums.

providing a better explanation of why certain individuals are violent (Brezina et al., 2004; Markowitz & Felson, 1998; Stewart, Simons & Conger, 2002).

Even more interestingly, the findings support that street culture operates on a contextual level, independent of a person's code internalization. Stewart and Simons (2010) find, based on data from an African-American youth sample, that with an increase in neighborhood street culture as well as an increase in a person's code internalization, violence becomes more likely. Importantly, these factors do not only operate independently but interact with each other. The effect of code internalization is more intense in neighborhoods where street culture is more pronounced.

Berg and colleagues (2012) speak to these findings and show that in neighborhoods in which street culture is more prevalent, individuals react more violently, independent of their norm internalization. As code internalization interacts with the prevalence of street values on the neighborhood level, people with strong code internalization react more strongly to the neighborhood prevalence than people with low internalization and are the most likely to become violent offenders.

However, since the US context of previous studies differs with regards to ethnic composition, ethnic segregation, and economic inequality from the German context, we additionally review key findings from Germany.

2.2 The Code in Germany

First of all, we present qualitative studies with explicit reference to Anderson's work, but then also discuss quantitative findings. Kurtenbach and Rauf (2019) conclude from their qualitative work that the street code can, by and large, be transferred to the German context. They find that the perception of the neighborhood, the meaning of violence, ideas of masculinity, and the role of respect comply with Anderson's findings. In a similar vein, German results of a cross-national comparison show that participants are willing to engage in violence to gain respect (Heitmeyer et al., 2019). Participants in Germany refer to violence as a sort of cultural capital in which a violent reputation is instrumental in gaining respect (Howell et al., 2019, p. 138).

While these qualitative findings trace Anderson's status motive for violence, quantitative research also found that violent norm internalization is associated with violence. Enzmann, Brettfeld, and Wetzels (2004)⁴ show, based on German school data, that violent norm internalization is related to violent offending and property offenses even after controlling for socio-economic disadvantage and ethnicity. Whereas this work focuses on interpersonal differences in the form of code internalization, Beier (2016) investigates the interrelation of intentions for violent behavior in reaction to provocation as a result of code internalization and the level of violence norms in schools. He uses vignettes and finds that a higher internalization of the violence norm leads to stronger intentions for violent behavior — but, the norm prevalence and level of provocation nuance the violent intentions. The intention to react violently is, for people with the strongest norm internalization, independent of the norm prevalence in the condition with explicit provocation, whereas the intentions depend on the norm prevalence for low provocation. On the contrary, people with the lowest norm

⁴ They use "Violence legitimizing masculinity norms" ("Gewalt-legitimierende Männlichkeitsnormen"), a concept close to Anderson's understanding. These violence norms form in response to marginalization experience, especially (socio-economic) disadvantage. At their center is the "defense of honor".

internalization report negligible violent intentions in the low and medium provocation condition independent of the norm prevalence. However, their intentions increase in the high provocation condition as the norm prevalence is widespread. In sum, Beier, following Anderson, finds that people intend to behave violently in relation to their norm internalization, but also as a response to the context, here the level of provocation and norm prevalence.

By now, we have reviewed findings on Anderson's understanding of the Code of the Street. These studies focus on the prevalence of the code by aggregating respondents' answers to the superordinate level, such as neighborhoods (Berg et al., 2012; Simons & Stewart, 2010) or school level (Beier, 2016). However, this procedure neglects the nature of violence and status, which are, by definition, interpersonal concepts. In the next section, we, therefore, turn to the literature on social networks.

2.3 Status Attainment through Violence

Social network analysis focuses on the relational dimension and addresses the connection between status and violence more directly. Status is a social dimension between actors, as one person ascribes it to another (Cohen, 1955, p. 65), and so is violence, as it is an act between victim and offender. In this strand of research, participants are supposed to nominate those peers whom they perceive as popular; and relating to violence, victims nominate students from their grade by whom they have been attacked, and offenders nominate students from their grade whom they have attacked. This nomination procedure does not intend to measure violent incidents but identifies violent relationships between actors. In many studies in this field, these relationships are counted: for example, the number of offender relationships a student has in a class, or how many status nominations a student receives. This identifies violent offenders or students with high status.

Studies using the outlined approach investigate, for example, whether violence is associated with popularity (Garandeanu, Ahn & Rodkin, 2011; Kreager, 2007). These studies find that violent behavior enhances status for specific groups of students and can depend on the context. The ascription of status to violent offenders differs for gender, academic performance, and depends on the overall level of violence (Kreager, 2007). While boys and low-achieving students gain status from violent behavior independent of the level of school violence, the association for girls and for high-achieving students depends on the level of school violence (Kreager, 2007). The more pronounced violence is on the school level, the more status nominations violent girls receive.

In addition to that, Garandeanu, Ahn and Rodkin (2011) find that violent behavior is only rewarded by status in classes with a steep status hierarchy. That is, where a few adolescents occupy positions of high status as opposed to an equal distribution of status across students. Moreover, they find that in classrooms with a high academic level, aggressive students are more disliked. These studies highlight that the social reaction to violent behavior differs across contexts and for different students. However, these studies do not explicitly aim to explain violent behavior, but whether violence is rewarded by status. More recent studies focus on this relation and investigate the other side of the coin, namely which students engage in violent behavior and whether it can be used as a means for status attainment (Farris & Felmlee, 2011; Laninga-Wijnen et al., 2019; Sentse et al., 2015). For the US, Farris and Felmlee (2011) find that higher levels of status lead to violent behavior, except for those at the very top and the very bottom of the hierarchy. Moreover, they find context effects concerning cross-gender

friendships and gender segregation. In gender-segregated schools, students who have more cross-gender friendships tend to be more aggressive. These cross-gender friendships serve as status markers, and students who hold these positions are particularly aggressive towards classmates.

In a similar vein, research on bullying finds that the relationship between popularity and bullying behavior depends on the overall extent of bullying in a class. In classrooms where bullying behavior is more common, popularity increases bullying behavior. In classes where bullying is uncommon, popularity does not increase bullying (Sentse et al., 2015).

Closest to our study, Laninga-Wijnen and colleagues (2019) investigate the status-violence norm. The status-violence norm is an expression of how many status nominations violent offenders receive. Laninga-Wijnen et al. (2019) obtained the association between violence and status in each school class and divided the analyzed classes into three groups: weak, medium, and strong associations between status and violence. Their longitudinal network models find that the violence-status norm is not only related to aggressive behavior but also to students' friendships. Only in classes in which aggressive behavior was strongly associated with popularity, students with similar levels of aggression befriended each other. Additionally, in classes of the medium or high category, aggressive friends influence each other in their violent behavior. After reviewing key findings of several literature streams, we propose our study in the next section. We review key shortcomings and describe how we contribute to filling these gaps.

3. The Present Study

As shown, not only research following Anderson's Code of the Street, but also research taking a social network perspective, finds that violence can—under certain conditions—be used to obtain status. In the present study, we combine these two research strands to advance the literature in several ways.

First of all, to provide a substantiated explanation of violence, we take an action-theoretical perspective. Secondly, by treating status and violence as interpersonal concepts, we provide a rich contextual measure instead of relying on aggregating individual responses to the superordinate level. Lastly, and most importantly, we provide a rigorous test of Anderson's framework by addressing heterogeneity between, and the selection into, contexts. The next section explains these aspects more thoroughly and concludes with our research hypotheses.

Explaining Criminal Behavior

In the Code of the Street, Anderson describes two processes: on the one hand, how people internalize the code, and on the other, how the code translates into action. This analytical distinction speaks to a recent reminder about the appropriateness of explanations. Hedström and Bearmann (2009) highlight that relating social facts to other social facts does not provide an explanation, and Farrington (2000) points to the problematic distinction between risk-factors⁵ as markers and as causes. Thus, social facts, like neighborhood disadvantage, or risk-factors, like lack of parental supervision, cannot explain violent behavior per se, but they explain differences in code internalization, and code internalization in turn, explain different reactions to situations.

⁵ Following Kazdin et al. (1997), a risk factor predicts an increased probability of later offending.

The argument becomes even more pronounced when considering the micro-foundations of criminal behavior. Beier (2016) takes an action-theoretical perspective and embeds the Code of the Street into the Model of Frame Selection, an integrative theory of action. The Model of Frame Selection (see Kroneberg, 2014) explains how actors define a situation and act accordingly, and follows the ideas of psychological dual-process theories, which distinguish between two modes of cognition: an automatic-spontaneous mode, which is fast, based on heuristics and follows internalized action scripts, and a reflecting-calculating mode, which is slow, as information is processed, and different options are weighed against one another before an actor decides to act.

In a situation, actors have to interpret the social world around them and therefore activate, apply, and construct “interpretations of their (social) world based on significant symbols” (Kroneberg 2014, p. 99). Following this interpretation⁶, they choose the appropriate way of acting for a specific situation. If an actor has an unambiguous interpretation of the immediate social world surrounding him, and thus the situation, he will react in the automatic-spontaneous mode. If an actor has an ambiguous interpretation of the immediate social world surrounding him, and thus the situation, she will react in the reflecting-calculating mode and process several alternatives by taking gains and costs into account.

Transferring this model to the Code of the Street, violent reactions depend on the interpretation of an actor, which is created by the immediate social world surrounding her and her code internalization. The degree of code internalization reflects the availability of the interpretation and translates to whether violence is seen as a viable means in a specific situation (Kroneberg, 2014, p. 101; Beier, 2016, p. 464). Anderson describes that street kids and decent kids differ in their code internalization. Related to the Model of Frame Selection, street kids are more prone to violence as they have internalized the code more strongly and are, therefore, more likely to interpret certain situations unambiguously and in favor of a violent outcome. In contrast, decent kids have internalized the code less, and thus need clearer symbols to interpret situations in favor of violence, and then will decide in the reflecting-calculating mode which action to choose. This also follows Beier’s (2016) findings that intentions for violent behavior depend on code internalization, the spread of street culture as well as the degree of provocation.

This theoretical embedding shows the value of the explanatory distinction between the cause of code internalization, like disadvantaged neighborhoods and poor parenting, and on the other hand, causes of violence, here differences in code internalization. An explanation of criminal behavior that neglects this micro-foundation would not give this level of detail and would not do justice to Anderson’s statements. He describes that decent kids are less likely to, but still can, react violently, and street kids are more likely to become violent, while both live in a poor neighborhood.

Conceptualization of Code of the Street on the Contextual Level

Anderson describes violent behavior as the result of the interaction between person and context in the very moment of occurrence (see, for example, Anderson, 1999, pp. 80–87). The importance of the situational explanation becomes even more significant from the action-theoretical perspective (see above; and further Kroneberg, 2014; and Beier, 2016). However,

⁶ For the sake of the argument, we ignore the distinction in the Model of Frame Selection between frames, which answer “What kind of situation is this?”, scripts “Which way of acting is appropriate” and action “What am I going to do?”.

most observational data cannot reflect this degree of detail, as they cannot observe the immediate situation, and, thus, must rely on approximations. For this purpose, studies have aggregated participants' answers about their code internalization to superordinate levels, such as neighborhoods (Stewart & Simons, 2010; Berg et al., 2012) or schools (Beier, 2016). The rationale behind this is that, with an increased spread of street culture, the activation of street interpretations becomes more likely.

While Anderson refers to situations, the abovementioned operationalization refers to spatial units, and in this respect, it must be acknowledged that "small is always better" (Oberwittler & Wikström, 2009). The smaller the unit, the better it reflects the behavior setting, which is the environment that persons perceive at a particular moment in time (Oberwittler & Wikström, 2009, p. 36). The approximation via larger units, like neighborhoods, is especially challenging as, with an increase in size, they become more heterogeneous, and thus the likelihood decreases that people who have internalized the code strongly are influenced by street culture, and thus interpretations related to the code are activated (for a similar point, see Berg et al., 2012).

To overcome this problem, we use smaller entities that can be experienced by all people acting in them. For this purpose, we choose school classes. In German secondary schools, students of the same grade are divided into classes and are mostly taught within these classes. Through this structure, students of the same class spend almost entire school days together and, thus, classes provide the most important source of social influence (Smith et al., 2016).

Furthermore, we do not aggregate participants' answers on their code internalization to the superordinate level but use network information on violence and status. We compare classes within schools in regard to their status ascription to violent offenders (see section 4.2). These network measures still do not report the very moment of crime occurrence. However, they reflect the social world by taking into account the relational nature of violence and status ascription, and their dependence on each other.

Heterogeneity and Selection

As Anderson describes Germantown Avenue as a poor African-American neighborhood, he provides features that distinguish it from other neighborhoods. These unique features challenge quantitative research endeavors that seek empirical generalizability across different contexts, such as neighborhoods or schools. While we do not want to evaluate ethnographic against quantitative research, we still point to the resulting challenges of heterogeneity and selection. For quantitative research, it is essential to know whether the observed characteristics of Germantown Avenue are specific to the neighborhood or if they can be transferred to others (for this point see also Small, Manduca & Johnston, 2018, p. 566).

Additional to the aspect of generalizability, but in the same vein, is the fundamental challenge of heterogeneity, which in general addresses differences between units like neighborhoods or actors. If unobserved heterogeneity between these units is associated with variables of interest, the statistical findings may be confounded and, therefore, incorrect.

A related issue is the selection of "kinds of people" into "kinds of contexts". People either select themselves into different contexts or are subjected to social selection. People select themselves into different neighborhoods according to their preferences and income (van Ham, Boschmann & Vogel, 2018), and they select themselves by their levels of crime propensity into different levels of criminogenic exposures (Wikström et al., 2010; Wikström & Treiber, 2016). Due to selection, it is difficult to disentangle whether people are violent due to selection into a

particular situation, or whether they are violent due to the proposed interplay; here, their code internalization and street culture.

To minimize heterogeneity between behavioral settings and to address selection, we use schools as a strategic research site and only compare students of the same school with each other. Schools are more similar to each other than neighborhoods in, for example, their deterrence abilities. Nevertheless, it is well documented that schools differ in their extent of violent behavior net of student's characteristics (for Germany, see Bergmann et al., 2017; Groß, Hövermann & Messner, 2018). Therefore, we apply school fixed-effect regressions. This estimation strategy only compares students of the same school with each other and, thus, controls for selection into different schools, as the school choice is already realized, and controls for heterogeneity between schools as school characteristics have the same effect on all students. More details on school fixed-effects will be given in section 4.3.

Our Approach

Regarding our research hypotheses, we follow the literature on the Code of the Street and translate it into our research strategy, which only compares students of the same school with each other. With an increase in code internalization, violence becomes more likely. Due to our within-school research design, the hypothesis regarding interpersonal differences reads as follows:

Hypothesis 1: When students have internalized the code more strongly than other students in their school, they have more violent relationships than their peers.

Secondly, the Code of the Street also prevails on a contextual level, street culture, and is associated with individual violent behavior regardless of individuals' internalization of the code. As status is ascribed to violent offenders, the status-violence norm is stronger, and violence becomes more likely. As we focus on within-school variation of the status-violence norm, we compare classes of the same school with each other in regard to their status-violence norm.

Hypothesis 2: In classes in which status and violence are more strongly associated, students have more violent relationships than in classes with a weak status-violence norm.

Lastly, Anderson explicitly states the interaction between code internalization and situations. Depending on their code internalization, students react differently to the street culture, here the status-violence norm.

Hypothesis 3: Students who have internalized the code more than their peers, have more violent relationships if they are in a class with a strong as opposed to weak status-violence norm.

4. Data, Method, Operationalization

4.1 Sample

We use data from the German large-scale school panel study "Friendship and Violence in Adolescents" (Kroneberg, Ernst & Gerth, 2016), which was conducted in five cities of the metropolitan Ruhr area. Data was collected between September and December 2013. Besides

schools for special needs and the highest German school track, Gymnasium, all schools from the five cities were asked to participate with their entire seventh grade. In total, 39 of the 45 contacted schools, and 2,635 of 3,334 students, participated in the survey, which yields a student participation rate of 79 %.

Students are 12.1 years old on average ($SD=.71$); 48 % are girls, and 51 % have a so-called migration background⁷. The study used an audio-enhanced computer-assisted self-interview, so-called Audio-CASI; all questions were presented in text and audibly via headphones to increase confidence and improve comprehension of survey questions (Beier & Schulz, 2015). Participants answered the questionnaire on netbooks provided by the research team.

4.2 Measures

Sociometric Information

Information about violent relationships and status ascription was gathered through the sociometric module of the study. Participants were given a roster containing all students of the same grade sorted by class and, in-class, sorted by alphabetic order. On the roster, each student was assigned a unique number which was used to answer questions on different social relationships to other students.

Violent relationships

Participants were asked to nominate up to five pupils from their grade whom they have offended (*Which classmates do you sometimes hit or kick?*)⁸ and five pupils from their grade by whom they are offended (*Which classmates sometimes hit or kick you?*)⁹ (for similar approaches, see Sentse et al., 2015). Outgoing and ingoing nominations were summed for each participant to create a measure of violent relationships. Bi-directional nominations between offender and victim count only once. For the analysis, the dependent variable is the sum of outgoing victim nominations and ingoing offender nominations.

Status-violence norm

For the relation between status and violence, we calculate the so-called status-violence norm for each class. For this purpose, we correlate the violent relationships with status nominations (for a similar approach see Dijkstra & Gest, 2015; Laninga-Wijnen et al., 2019). For the latter, participants were asked to nominate up to 10 students from their grade whom they thought were most popular (*Who are the most popular students in your grade?*)¹⁰. Ingoing nominations were summed for each participant. Even though nominations for the entire grade were possible, we counted only nominations between students of the same class to allow for between class comparison.

With increasing values of the correlation, the relation between violence and status ascription becomes stronger, meaning higher values of the correlation indicate that violent offenders receive more status nominations from their classmates.

⁷ The participant or at least one parent was not born in Germany.

⁸ German version: „Wen schlägst oder trittst *du* manchmal?“ ; Emphasis in original.

⁹ German version: „Wer schlägt oder tritt *dich* manchmal?“; Emphasis in original.

¹⁰ German version: „Wer sind die beliebtesten Schüler in deiner Jahrgangsstufe?“

Code of the Street

A seven-item self-report scale measured code internalization. The items are a German translation of the Stewart and Simons (2010) scale to measure whether participants agree on the use of violence (1 = strongly disagree to 5 = strongly agree)¹¹. For each participant, the mean across all seven items was calculated. The alpha coefficient was .84. High values correspond to strong norm internalization.

1. When someone disrespects you, it is important that you use physical force or aggression to teach him or her not to disrespect you.
(Wenn man respektlos behandelt wird, muss man mit Gewalt dafür sorgen, dass man respektiert wird.)
2. If someone uses violence against you, it is important that you use violence against him or her to get even.
(Wenn jemand gegen dich Gewalt anwendet, ist es wichtig, ihm oder ihr das auch mit Gewalt heimzuzahlen und das nicht auf sich sitzen zu lassen.)
3. People tend to respect a person who is tough and aggressive.
(Wer hart und aggressiv ist, wird von anderen respektiert.)
4. People will take advantage of you if you don't let them know how tough you are.
(Man muss den Leuten zeigen, wie stark man ist, sonst wird man von ihnen ausgenutzt.)
5. Sometimes you need to threaten people in order to get them to treat you fairly.
(Manchmal muss man andere Leute bedrohen, damit sie einen vernünftig behandeln.)
6. It is important to show others that you cannot be intimidated.
(Es ist wichtig, anderen zu zeigen, dass man sich nicht einschüchtern lässt.)
7. People do not respect a person who is afraid to fight physically for his/her rights.
(Die Leute haben Respekt vor jemandem, der sich traut, mit Gewalt für die eigenen Rechte zu kämpfen.)

Controls

Further, we control for self-control¹², gender and migration background.

4.3 Analytical strategy

As we have identified (unobserved) heterogeneity and selection as major threats to our inference process, we rely on school fixed-effects models that only compare students of the same school with each other (for school fixed-effects, see Legewie & DiPrete, 2012; for the use of fixed-effects in general, see Allison, 2009; Andreß, Golsch & Schmidt, 2013).

Equation 1:

$$y_{is} = code_i\beta_1 + svn_{cs}\beta_2 + S_s + \varepsilon_{is}$$

Equation 1 shows the linear regression for school violence, y_{is} for student i in school s , which is explained by person i 's code internalization, $code_i$, and the status-violence norm, svn_{cs} , of class

¹¹ German Version: (1 = stimme gar nicht zu; 5 = stimme voll und ganz zu).

¹² Items are displayed in the appendix; Cronbach's Alpha=.72; high values represent low levels of self-control.

c in school s. The error term consists of school differences, S_s , and the person-specific error term ε_{is} .

Equation 2:

$$\bar{y}_s = \overline{code}_s \beta_1 + \overline{svn}_s \beta_2 + S_s + \bar{\varepsilon}_s$$

Equation 2 presents the school-specific mean. By subtracting equation 2 from 1 the fixed effects, within-school estimator, in equation 3 follows, which is net of school heterogeneity S_s . For the sake of clarity, we have dispensed with the controls.

Equation 3:

$$(y_{is} - \bar{y}_s) = (code_{is} - \overline{code}_s) \beta_1 + (svn_{cs} - \overline{svn}_s) \beta_2 + (\varepsilon_{si} - \bar{\varepsilon}_s)$$

This estimation strategy comes with less efficient estimates, as the standard errors are relatively large (Allison, 2009, p. 17).

To ease the interpretation of the interaction term, we standardize the independent variables on the interval [0,1] (see Braumoeller, 2004), and present two sets of estimates. The first set is standardized over the entire sample, the second set is standardized within each school (see Mummolo & Peterson, 2018). The within-school standardization allows for changes in the independent variable that could plausibly occur and thus provides a more substantive interpretation of the results compared to standardization over the entire sample.

For the estimation of the interaction effect, we include the constitutive terms alongside the interaction and interpret the coefficients of the constitutive terms as conditional effects (as advised by Brambor, Clark & Folger, 2006). In addition, we recognize a recent suggestion by Hainmueller, Mummolo and Xu (2019) concerning the linearity assumption, as well as areas of common support, and use their STATA ado Interflex (Xu et al., 2017) which allows for a graphical representation of the interaction. The linearity assumption states that the moderator changes at a constant rate with the predictor; that means, i. e., that the effect of the norm internalization on violence increases at the same rate as the status-violence norm¹³.

Another point addressed by Hainmueller, Mummolo and Xu (2019) is the area of common support. For a substantive interpretation of the marginal effects, a sufficient number of observations of the moderator, and variation in the treatment must be given. For our purpose, this means, for example, that we must observe different levels of code internalization at the same level of the status-violence norm. If we only observed people with a strong norm internalization, and nobody with a low code internalization exposed to the maximum of the status-violence norm, conclusions about the effect of norm internalization under the maximum status-violence norm would be insubstantial.

5. Results

In table 1, we report the descriptive results. Of the 2,412 participants in our analytical sample, 1,342 (55.64 %) have no violent relationship, 21 % have 1, 10 % have 2, 5 % have 3. On average,

¹³ But actually, with Anderson, we would assume that stronger norm internalization leads to a clearer interpretation of the situation, and thus stronger norm internalization needs less indication of the status-violence norms; compared to low norm internalization which needs clearer signs for “violent” situations.

students have .95 violent relationships (SD=1.44). The code internalization is on average .37 (SD=.23) and thus participants on average show little agreement with statements regarding the code. The status-violence norm is on average .60 (SD=.18). Thus, the correlation between the number of violent relationships and status nominations on the class level is rather high.

Table 1. Summary Statistics (N= 2,412)

Variable	Mean	Standard Deviation	Minimum	Maximum
Dependent variable				
Incidence	.95	1.44	0	10
Standardized entire sample				
Code	.37	.23	0	1
Status-violence norm	.60	.18	0	1
Standardized within school				
Code	.39	.24	0	1
Status-violence norm	.47	.41	0	1

Results Standardized Over the Entire Sample

Table 2 presents the findings on the school fixed-effects estimator for the standardized independent variables over the entire sample. Model 1 speaks to hypotheses one and two. It shows that students with the highest code internalization have on average 1.56 ($p < .001$) violent relationships more than the students with the lowest code internalization. This finding is in line with hypothesis one. In classes with the strongest status-violence norm, that is the correlation between status and violence, students have on average .58 ($p < .001$) violent relationships more than students in classes with the lowest status-violence norm. This finding supports our second hypothesis.

Model 2 considers the interaction of code internalization with the status-violence norm, hypothesis three. The significant product term indicates that the association between the code internalization and violent relationships depends on the level of the status-violence norm. The interaction between code internalization and status-violence norm provides the conditional effects, and thus reports the change of one variable for different levels of the other.

The coefficient of code internalization gives its conditional effect on the number of violent relationships as the status-violence norm is zero. This means that having the maximum rather than the minimum of code internalization is associated with .33 more violent relationships, as students are exposed to the lowest level of the status-violence norm. Looking at the interaction term, we see that when students are exposed to the maximum of the status-violence norm, the association of code internalization is stronger. Under the latter condition, students with the maximum code internalization have $(.33 + 2.05 = 2.38)$ 2.4 violent relationships more than students with the minimum code internalization.

Supplementing the coefficient for the status-violence norm gives its conditional effect for participants with the lowest code internalization. When comparing students with the lowest code internalization in the different status-violence norm conditions, we see that these students have -.18 violent relationships less as they are exposed the maximum rather than the minimum status-violence norm. Whereas students with the maximum code internalization react quite strongly to changes in the status-violence norm. If these students are exposed to

the maximum correlation between status and violence, rather than the minimum, they have on average about 2 violent relationships more ($-.18+2.05=1.87$).

This interaction is visualized in Figures 1 and 2. The figures show the conditional marginal effects of the moderator on the dependent variable, see y-axis, for different levels of the independent variable, given on the x-axis. The grey area shows the confidence intervals; if they include 0 on the y-axis, then the effect is not significant. The histogram on the lower part of the diagram reflects areas of common support.

Figure 1 shows the marginal effects of the status-violence norm for different levels of code internalization. Students with low code internalization, below a level of .29, do not react to different levels of status-violence norm with a change in their violent relationships. However, with an increase in code internalization, students are more violent as they are exposed to higher levels of status-violence norm.

Figure 2 shows the complementary relationship of the marginal effects of code internalization for different levels of the status-violence norm. Only, as the status-violence norm is below .05, students differ not significantly by their level of code internalization in their violent behavior. These results are robust, even if we control for self-control, gender, and migration background, models 3 and 4.

Table 2. School fixed-effects; standardized over entire sample (DV: violent relationships)

	Model 1	Model 2	Model 3	Model 4
Status-violence norm (svn)	0.58*** (0.17)	-0.18 (0.28)	0.56*** (0.17)	-0.25 (0.27)
Code of the street (code)	1.56*** (0.13)	0.33 (0.44)	1.09*** (0.15)	-0.22 (0.44)
code*svn		2.05** (0.73)		2.18** (0.72)
Girl			-0.41*** (0.06)	-0.41*** (0.06)
Self-control			0.75*** (0.18)	0.76*** (0.18)
Mig. background			0.16** (0.06)	0.16** (0.06)
Constant	0.02 (0.11)	0.47** (0.16)	0.03 (0.13)	0.51** (0.17)
Observations	2412	2412	2412	2412

Notes: Estimates in STATA 14 with Ado reghdfe; with cluster robust standard errors

All variables are standardized on the unit interval [0,1] over the entire sample.

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Figure 1. Marginal Effect of the status-violence norm on incidence for different levels of code internalization (standardized on the entire sample)

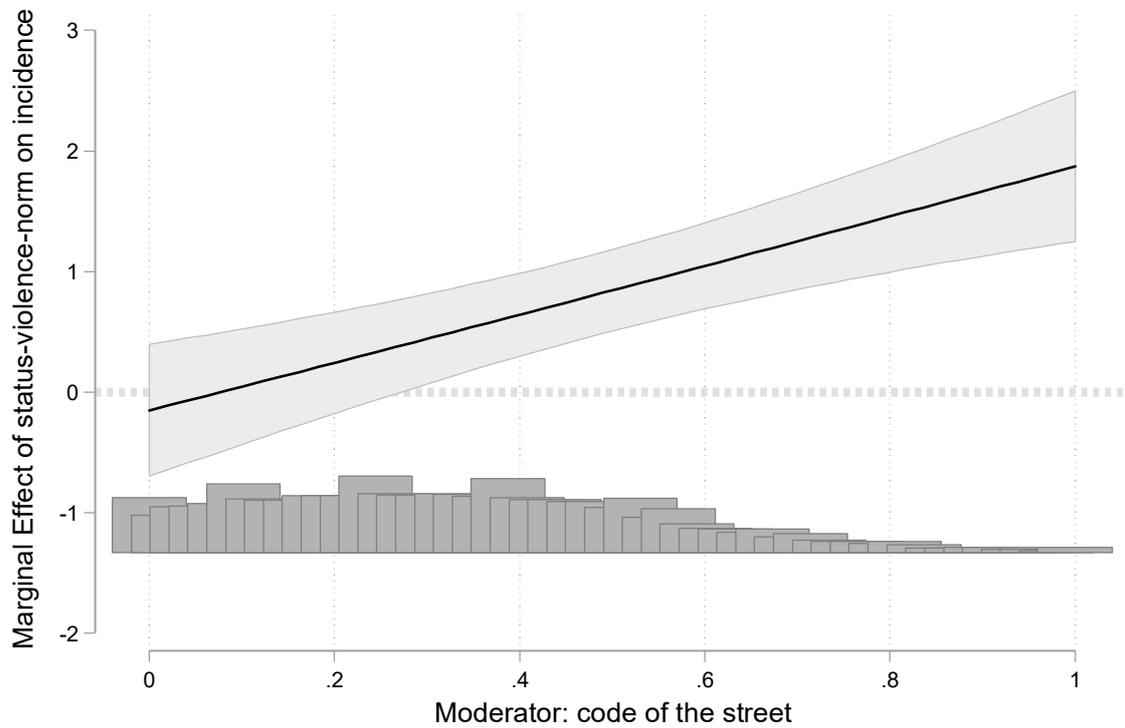
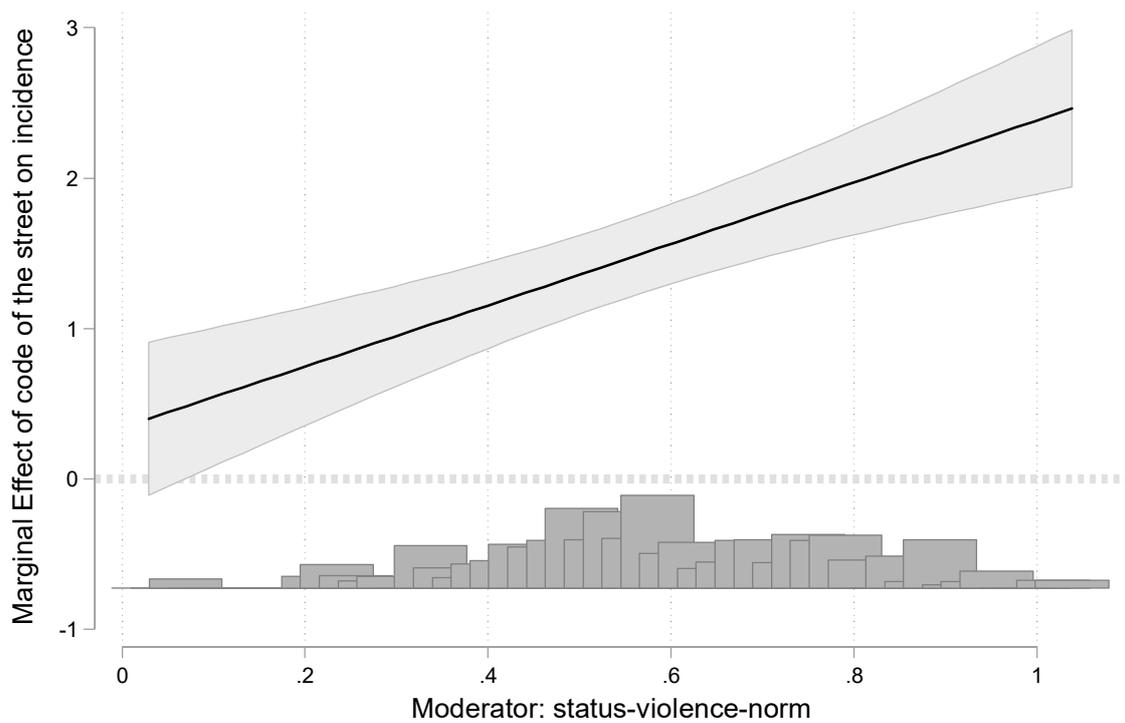


Figure 2. Marginal effect of code internalization on incidence for different levels of the status-violence norm (standardized on the entire sample)



Results standardized within each school

In Table 3, we now turn to the set of estimates in which the independent variables are standardized within each school. The results point in the same direction as the previously discussed findings when we standardized across the entire sample.

Model 5 also speaks in favor of hypotheses one and two. Students who have internalized the code more strongly have more violent relationships than students with weaker code internalization (1.49; $p < .001$), and in classes in which status and violent behavior are more strongly correlated, students have more violent relationships (.25; $p < .001$).

The significant product term of model 2 indicates that the level of the status-violence norm moderates the association between code internalization and violent incidents. We start discussing the interaction, again, by asking whether students with the minimum rather than the maximum of code internalization have a different amount of violent relationships as they are exposed to different levels of the status-violence norm. As students are exposed to the minimum of the status-violence norm, students with the maximum, compared to the minimum code internalization, have 1.19 violent relationships more. If students are exposed to the maximum status-violence norm, the difference increases: in this condition, students with the maximum rather than the minimum code internalization have about $(1.19 + .67 = 1.86)$ 2 violent relationships more.

Changing the perspective, we now ask if exposure to the minimum rather than the maximum status-violence norm has different consequences for students according to their code internalization. Students with the minimum of code internalization have -.01 fewer violent relationships when they are exposed to the maximum rather than the minimum of the status-violence norm. Students with the maximum code internalization react more strongly to a change in the status-violence norm. Exposed to the maximum status-violence norm, rather than the minimum, these students have $(-.01 + .67 = .66)$ about .7 violent relationships more. Model 5 is represented in Figures 3 and 4. As before, these findings hold as we include controls (see models 7 and 8).

Compared to the first set of estimates, which are standardized over the entire sample, the results of the second, standardized within each school, are smaller, but still substantial and more realistic, as they only consider change within schools that could be realized observed values.

Table 3. School fixed-effects; standardized within each school (DV: violent relationships)

	Model 5	Model 6	Model 7	Model 8
Status-violence norm (svn)	0.25*** (0.07)	-0.01 (0.12)	0.24*** (0.07)	-0.01 (0.12)
Code of the street (code)	1.49*** (0.13)	1.19*** (0.18)	1.02*** (0.15)	0.74*** (0.19)
code*svn		0.67* (0.31)		0.63* (0.31)
Girl			-0.41*** (0.06)	-0.41*** (0.06)
Self-control			0.67*** (0.15)	0.66*** (0.15)
Mig. background			0.16** (0.06)	0.16** (0.06)
Constant	0.25*** (0.06)	0.37*** (0.07)	0.24** (0.09)	0.35*** (0.09)
Observations	2412	2412	2412	2412

Notes: Estimates in STATA 14 with Ado reghdfe; with cluster robust standard errors

All variables are standardized on the unit interval [0,1] within each school.

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Figure 3. Marginal effect of code internalization on incidence for different levels of the status-violence norm (standardized within each school)

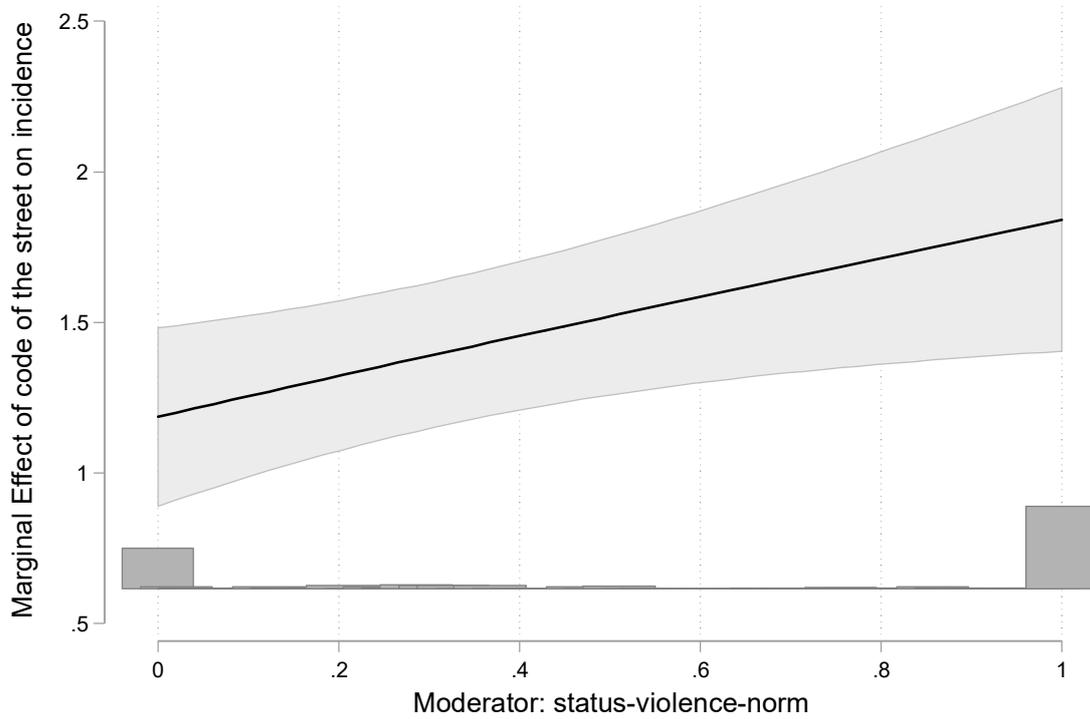
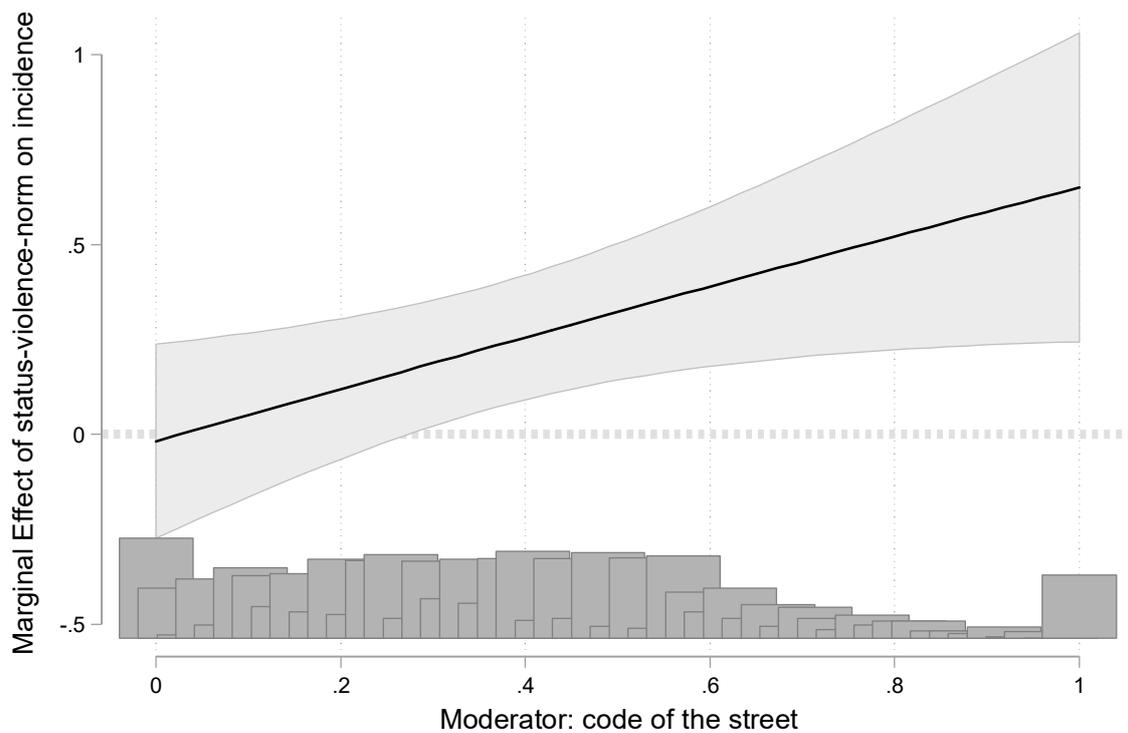


Figure 4. Marginal effect of the status-violence norm on incidence for different level of code internalization (standardized within each school)



6. Discussion and Conclusion

The foregoing analysis confirmed a number of core implications of Anderson's ethnography *Code of the Street* (1999). In line with previous studies, we find that, with an increased code internalization, violence becomes more likely. Moreover, we show that the stronger the street culture, in form of the status-violence norm, the more likely violence becomes. Interestingly, only actors with a strong code internalization are affected by the status-violence norm. They are more violent when violence is rewarded with status.

In contrast to earlier studies (Berg et al., 2012; Stewart & Simons, 2010), we find that students with a weak internalization of the code do not react to status-violence norm variations and are, in general, less likely to offend violently. This may be explained by our explicit focus on the relation between status and violence, which is, compared to other aspects of the Code of the Street, like provocation (see Beier 2016), a rather weak indicator for street culture. Anderson describes that decent kids, who have internalized the code less, also choose violence as a reaction in certain situations, because they, for example, fear future victimization. The use of violence to gain status may simply not be a sufficient reason to act violently for the kids in the investigated setting. With the Model of Frame Selection, one may argue that decent kids either do not perceive the status-violence norm as an indicator for street culture, or deliberately decide against the use of violence, given that they perceive the violent option.

Our study advances the literature in several ways. As we rely on network information on violence and status, we speak more directly to the interpersonal dimension than has previously been seen in the literature on the Code of the Street. While we cannot observe the very moment of crime occurrence, we can still bring together violence between two actors and their social world, in the form of the status-violence norm, and our approach, thus, addresses the interaction between actor and behavioral setting more directly.

Additionally, to make behavioral settings more comparable, we use schools as a strategic research site as they are more homogenous than other settings, such as neighborhoods. Schools provide clear boundaries that allow identifying and realistically surveying all individuals that belong to that context. But most importantly, we account for variations between contexts as well as selection effects by employing school fixed-effect regressions. This approach eliminates potentially confounding effects and, thus, allows a stronger inference about the interplay between code internalization and the status-violence norm.

Finally, a number of potential limitations need to be considered, which serve as a basis for future research. The first is related to our measurement strategy. Following Anderson's descriptions, we wanted to observe the conditions under which code internalization interacts with street culture in the very moment of crime occurrence. But our measures of violence, as well as status ascription between students of the same grade, only capture their violent relationships, and violence between students could have also occurred outside the school context. Thus, they were not subjected to the immediate influence of the status-violence norm. However, a significant share of overall violent incidents between students is committed within schools (Wikström et al., 2012, p. 276), and thus, we assume that at least a share of the violence captured by our measurement is committed within the schools. Moreover, the status-violence norm is indicative of a general norm students experience. Hence, their violent relationships, even if they occur outside the school context, should be affected by this norm.

Second, while our measure of violence is relational and not a behavioral measure, we do not know into what intensity of violent behavior violent relationships translate.

Third, our study is a cross-sectional study, and thus we cannot identify a causal relationship. However, by creating a quasi-experimental setting, our fixed-effects approach comes closer to the real association than usual correlational approaches, at least as we can control for alternative explanations, like selection.

Lastly, to identify the interplay between the status-violence norm and code internalization, we constructed a contextual measure of street culture, by correlating violence and status relationships within classrooms. This within-classroom correlation is the most frequently used approach (Dijkstra & Gest, 2015; Laninga-Wijnen et al., 2019). However, we do not know how it translates into experienceable symbols of the social world. Compared to previous studies on the Code of the Street, we use smaller spatial units, classes, in which participants interact directly with each other and share mutual experiences. We argue that our peer reports are closer to the social reality of the participants, thus to the shared understanding of street culture, than the aggregations of participants' responses to code internalization. Nevertheless, future research addressing this issue, especially qualitative or mixed-method approaches, may give further insights.

As we have addressed the action-theoretical implications of Anderson's Code of the Street and the status-violence norm, future research could relate to their emergence, which also allows a better understanding of context differences. To put this more directly: why do classes in the same grade in the same school differ in the extent to which they assign status to violent offenders? Are there specific classroom compositions for which we have not accounted that lead to the emergence of these contexts? Do single individuals drive the context in this direction? And who are the individuals that assign status to violent offenders?

A deeper understanding could provide schools with information on how to assign students to classes or on which students would need to be monitored more carefully in order to prevent the emergence of a context that awards violence with status. Taken together, this study has gone some way towards enhancing our understanding of the interplay between code internalization and street culture by providing a more rigorous empirical test.

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Appendix

Self-control items

1. I never think about what will happen to me in the future.
(Ich denke nie darüber nach, was in Zukunft mit mir passieren wird)
2. I don't devote much thought and effort to preparing for the future.
(Ich mache mir normalerweise wenig Gedanken und Mühe, mich auf meine Zukunft vorzubereiten)
3. I often act on the spur of the moment without stopping to think.
(Ich handle of spontan, ohne lange nachzudenken)
4. I easily get bored with things.
(Mir wird schnell langweilig)
5. When I am really angry, other people better stay away from me.
(Wenn ich wirklich wütend bin, sollten andere mich lieber in Ruhe lassen)
6. I lose my temper pretty easily.
(Ich verliere ziemlich schnell die Beherrschung)
7. Sometimes I will take a risk just for the fun of it.
(Manchmal gehe ich nur zum Spaß ein Risiko ein)
8. I sometimes find it exciting to do things for which I might get into trouble.
(Manchmal finde ich es aufregend, Dinge zu tun, die gefährlich sein könnten)

Response range (1= strongly disagree/ stimme überhaupt nicht zu; 5= strongly agree/Stimme voll und ganz zu)