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Testing three theoretical mechanisms**

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Community multiculturalism and self-reported immigrant crime: testing three theoretical mechanisms

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Abstract

There is considerable contextual variation in crime among immigrants and their native-born descendants, and this study aims to understand that variation better. It examines whether municipal variation in self-reported crimes among Turkish- and Moroccan-Dutch men living in 35 representative Dutch cities (N=911), including the four largest cities, is associated with municipal variation in multicultural attitudes, or ‘community multiculturalism’, among the native-Dutch (N=2,556). We propose, and test, a mechanism-based theoretical model that links Berry’s acculturation theory to general strain theory, social bonding theory, and collective efficacy theory. Evidence is found for a protective effect of community multiculturalism for immigrant crime, which is mostly explained by collective efficacy theory with somewhat weaker evidence for general strain theory and social bonding theory. We discuss implications for the discussion on the (dis)advantages of multiculturalism, and suggest various avenues for further inquiry into immigrants’ ‘context of reception’, and how the acculturation attitudes among established groups affect social cohesion outcomes in multi-ethnic societies.

Keywords: acculturation theory, immigrant crime, context of reception, local-level variation

JEL Classification: K13, I30, Y80

Community multiculturalism and self-reported immigrant crime: testing three theoretical mechanisms

Introduction

Immigrants' context of reception – the economic, legal and social conditions in the country of immigration (Portes and Rumbaut (2019) – codetermines immigrant incorporation patterns, and related outcomes such as crime. That context also involves attitudes and policies on migration-related diversity, and there is now an especially rich academic and public debate on the (dis)advantages of multiculturalism – typically understood as a national policy approach. Bloemraad and Wright (2014), for instance, highlight possible advantages of multiculturalism and report that immigrants report less discrimination and higher level of social and institutional trust under multiculturalism. Others dispute that multiculturalism is necessarily advantageous, and argue that it may unintendedly hamper immigrants' positioning on the labour market to the extent that it puts less pressure on newcomers to learn the destination country's formal language(s) (cf. Koopmans, 2010, 2013). In Berry's (2011, 2017) acculturation theory, which informed our analyses, multiculturalism does not necessarily pertain to policies (also see Bourhis *et al.*, 1997); it is an 'acculturation orientation' or ideology in the receiving society that – through policies or otherwise – seeks to facilitate immigrants' and ethnic minorities' equitable participation, while allowing these groups to maintain heritage cultures to a notable extent.¹

Internationally comparative studies can collect no more than suggestive evidence on the (dis)advantages of multiculturalism, as it cannot identify relevant confounders easily: if international variations in a given outcome are correlated with differences in integration policies, it is typically hard, if not impossible, to assess whether the relationship is caused by these policies or, for instance, reflects international differences in the ethnic composition of

immigrant populations, labour markets, different admission policies, and so forth. Such methodological limitations are among the reasons why scholars have increasingly become interested in *intra-national variation* in the context of reception (Bean *et al.*, 2012; Glick Schiller and Çağlar, 2009).

One intriguing contextual difference, both internationally and intra-nationally, pertains to what could be called ‘immigrant (origin) crime’ (for reasons of brevity shortened to ‘immigrant crime’ in this article): crime among foreign-born residents (‘first-generation immigrants’) and their native-born children (conventionally labelled ‘second-generation immigrants’).² While both generations tend to be overrepresented among suspected and convicted offenders in Europe – in some countries more than in others – they are not, or considerably less, overrepresented in traditional immigration countries, including the US, Canada and Australia (Bersani, 2014; Bucerius and Tonry, 2014; Kubrin, Kim and Hipp, 2019). Furthermore, there is relevant *local-level variation* (Piopiunik and Ruhose, 2017; Van San and Leerkes, 2001). In the Netherlands, for example, the degree of overrepresentation of residents with a first- or second-generation Moroccan background among local crime suspects differs between municipalities from 1.3 to 4.2, and is generally lower in cities than in smaller towns (De Boom *et al.*, 2013).

We carried out two interrelated research projects with a view to better understanding contextual variation in immigrant crime and its relation to multiculturalism. Both projects focus on local-level *multicultural attitudes*, or what we will call ‘community multiculturalism’ (hereafter: ‘CM’), rather than *multicultural policies*, which are typically determined at the national level. In discussions of national policy models, local-level variation in such attitudes is usually overlooked, and the importance of attitudes is often neglected altogether. There is nonetheless considerable local-level variation in acculturation attitudes, even in small countries like the Netherlands, our focal country. There is substantial variation between cities and more

rural environments (Maxwell, 2019, Schwarz *et al.*, 2014) but also among municipalities with comparable demographics (Martínez-Ariño *et al.*, 2019).

The first research project examined how local-level variation in CM among native-Dutch residents living in the four largest cities and 31 other representative municipalities was associated with differences in the number of registered suspected crimes among all male inhabitants (ages 12–65) with a first- or second-generation Turkish or Moroccan background living in these municipalities in 2010. This was done by adding aggregated survey information as a municipal-level variable to a population database with micro-level police data and other administrative information on all registered residents. CM was measured using Wave 1 of the Netherlands Longitudinal Survey (NELLS), a large sociological survey on the living situation of the Dutch population, carried out in the 2008–2010 period. It was found to be associated with a *lower* number of crimes suspects in each of the two immigrant groups, especially among first-generation immigrants (no significant effects were found for second-generation immigrants with a Moroccan background).

The results of the second research project are reported here. For that project, we similarly used the NELLS to measure CM, but also used it to measure criminal behaviour, as the questionnaire included various items on self-reported criminal offending. Furthermore, by limiting the analysis to the NELLS, we could conduct additional, more direct tests of the three main causal mechanisms that, in our view, promote a negative relationship between CM and immigrant crime, namely: (1) strain reduction (cf. Agnew, 2005, 2016), (2) facilitation of individual-level social bonds (cf. Hirschi, 1969), and (3) facilitation of the extent to which the immigrant group experiences, and is involved in, collective efficacy (cf. Sampson and Wilson, 2012).

Triangulating police data and self-reported offending data is crucial, as both are imperfect indicators of criminal behaviour. Police suspect data evidently measures criminal behaviour,

but also capture residents' reporting behaviour and law enforcement practices (cf. Newburn, 2003). Self-reported offending data, in turn, is subject to underreporting, and is limited to lighter forms of crime among a sample of people who are willing and able to participate in surveys.

A main strength of the NELLS data is that it can rule out two alternative interpretations of the observed negative association between CM and crime found in the first project, namely (1) that it merely points at local variation in residents' reporting behaviour and law enforcement (e.g. that a lower punitiveness towards immigrants under CM leads to less formal punishment), and (2) that the association is merely due to reverse causality as immigrant crime may decrease CM. If an association between CM and self-reported crime can be demonstrated, the first of the two alternative interpretations apparently cannot (fully) account for the association. If we can empirically demonstrate paths leading from CM to immigrant crime, both alternative interpretations lose plausibility. Data on self-reported offending is generally considered suitable for such theory testing (cf. Junger-Tas and Marshall, 1999). We thus ask: *Is there a negative relationship between CM and the degree of self-reported offending among first- and second-generation immigrant men with a Turkish or Moroccan background, and, if so, can that relationship be explained by municipal differences in the degree to which the men experience strain, social bonds and community collective efficacy?*

The analysis pertains to the same municipalities as the in first project, similarly focuses on men – as men commit most crimes³ – and similarly focuses on crime among residents with Turkish or Moroccan migration background. The latter focus is partially a consequence of the NELLS, which was designed to also be representative for the two immigrant groups – the two largest ethnic minorities in the Netherlands – not for other immigrant groups. As a result, a considerable number of men with a Turkish or Moroccan background ($n=911$) answered

questions that were used to answer the research question. About two thirds of these men ($n=602$) are first-generation immigrants.

The two immigrant groups also are uniquely suitable to investigate the relationship between CM and immigrant crime. The initial immigrants migrated to municipalities scattered across the country under the influence of the recruitment practices for ‘guest workers’ in the 1960s and 70s (Stearns, Castles and Kosack, 1974), from where they initiated family reunification and formation processes (Leerkes & Kulu-Glasgow, 2011). Both immigrant groups thus had limited influence on their local context of reception, arguably giving their spatial distribution quasi-experimental properties.

Theory and hypotheses

Community multiculturalism

In Berry’s (2011, 2017) acculturation theory, which informed the analyses, multiculturalism constitutes one of four ideal-typical ‘acculturation orientations of the dominant group’. These orientations result from two analytical dimensions being juxtaposed: (1) the degree to which preservation of the immigrants’ heritage culture is allowed/promoted and (2) the degree to which immigrants’ participation in the host societies’ institutions is allowed/promoted. A dominant group with a *multicultural* orientation tolerates that immigrants and their native-born descendants preserve the heritage culture to a considerable extent, while inviting them to socially participate on an equal basis. The other orientations are ‘melting pot’ or *assimilationism* (participation on an equal basis is allowed provided that cultural differences have been diminished, which typically requires adaptation on the part of the immigrant group), *segregationalism* (the heritage culture may be maintained, but equal participation is not welcomed) and *exclusionism* (the heritage culture may not be maintained and equal participation is discouraged).

In Berry's model, *multiculturalism* fosters *integration*, which means that migrants are involved in the heritage culture to a considerable extent while also having obtained a notable degree of social positioning in the destination country as indicated, for example, by their position on the labour market, educational attainment, and inclusion in the polity via citizenship acquisition. *Assimilationism*, *segregationalism*, and *exclusionism* are respectively assumed to promote *assimilation*, *separation* and *marginalization*.

Immigrants' acculturation outcomes are well-researched, but there is little empirical research on Berry's conceptualization of the dominant group's acculturation orientation. While research confirms that migrants' preferences and outcomes are indeed bi-dimensional (Berry, 2017), there is some evidence that the dominant group's orientation, especially when attitudes rather than formal policies are considered, actually tends toward one-dimensionality. The reason may be that *assimilationism*, *segregationalism* and *exclusionism* all share the component of exclusion of migration-relation diversity in some form (Bourhis, 2017; Bourhis *et al.*, 1997). In our first study, we found that municipal variation in the Netherlands in CM indeed varies 'diagonally' in Berry's two-by-two model, from *exclusionism* to *multiculturalism*. In what follows, we therefore contrast CM and exclusionism when discussing the influence of the dominant's group acculturation orientation on immigrant crime. The one-dimensionality of these acculturation orientations in the Netherlands could imply that we should perhaps use the term 'community inclusionism' (also see Bean *et al.*, 2012) rather than CM. We nonetheless stick to Berry's terminology, as future research may identify the other acculturation attitudes in other contexts.

Relation to crime

In what follows, we offer a multicausal, mechanism-based explanation of the influence of CM on crime, which combines insights from general strain theory, social bonding theory, and

collective efficacy theory. While these theories emerged in different schools of thought (i.e. the functionalist and rational choice paradigms), we see them as complementary rather than contradictory. The three theories all lead us to expect a negative relationship between CM and immigrant crime (*HI*) – especially when relatively unorganized forms of street crime are considered which both predominate in the NELLS survey and in police data.

A leading theory in explaining crime is the *general strain theory* (Agnew, 2005, 2016). Based on Merton's (1938) classical anomie theory, it suggests that people are motivated to commit crime because of stressors and negative emotions. To counterbalance or correct these stressors and emotions, people engage in corrective action, including crime. Anger in particular, is conducive to motivate criminal behaviour as it decreases concerns regarding the consequences of one's actions. Strains do not automatically result in crime, however. The stronger a person's self-esteem, the higher the probability that possible strains results in other forms of coping than crime (Agnew, 2016).

Three main types of strain exists (Agnew, 2016): the inability to achieve valued goals, the loss of a positively valued stimuli, and the presentation of a negative stimuli. Several characteristics of these strains determine their criminogenic potential. The more severe, frequent and lasting a strain, the more likely it is to motivate anger and crime. For people with a migration background, a good example of such a strain is *perceived ethnic discrimination* (Leerkes, Martinez and Groeneveld, 2019; Verkuyten, Thijs and Gharraei, 2019), as it will be perceived as painful, unjustified and largely out of control.

Another example is having a relatively *low socio-economic status* (SES), especially when the immigrant group is relatively well-established, as is the case for the two focal immigrant groups. Such immigrant groups increasingly compare themselves with reference groups in the country of immigration, not just the country of origin. With a lower education and income it is harder to access primary labour markets and to buy valued products or services, and criminal

activities may partially be aimed at overcoming such constraints and/or to cope with the anger they may produce (Agnew, 2016).

While perceived discrimination may paradoxically increase when migrants become more oriented to the destination country, there is evidence that ‘integrated’ migrants, in Berry’s sense, are less likely to perceive discrimination when biculturalism is socially accepted, and generally maintain higher levels of self-esteem (Berry and Sabatier, 2010). Multiculturalism is assumed to facilitate such integration, and Bloemraad and Wright (2014) indeed find that immigrants perceive less discrimination in countries with multicultural policies. There is more disagreement on the effects of multiculturalism on SES. As was mentioned in the introduction, Koopmans (2010) contends that it may slow down immigrants’ social positioning, but Bloemraad and Wright (2014) do not find that multicultural policies are associated with worse outcomes. A study that compared European cities – a study that seems to have the most direct relevance for the present study – indicates that local-level inclusive attitudes are associated with *better* socio-economic outcomes (Bean *et al.*, 2012).

Most studies thus suggest that CM weakens first- and second-generation immigrants’ exposure to strains and improves migrants’ ability to deal with possible strains through coping mechanisms other than crime. Consequently, we hypothesize that the association between CM and immigrant crimes decreases after controlling perceived ethnic discrimination and SES (H2).⁴

Hirschi’s (1969) *social control theory* argues that social bonds help individuals in restraining themselves from committing crimes: it contends that a person’s desire and/or opportunity to commit crimes is reduced in case of a strong attachment to family, neighbours and institutions (‘attachment’), a strong dedication to conventional norms and values (‘commitment’), a strong participation in conventional activities (‘involvement’), and/or a strong belief in conventional norms (‘belief’).

Different forms of social and institutional trust are indicators of these bonds, as such bonds both require and produce trust. *Particularized trust* pertains to quality of the attachment with known people, such as family, friends and acquaintances. *Generalized trust* pertains to the amount of trust in members of the society in general, and is associated with morality and sociability ('commitment' and 'belief'). *Institutional trust* pertains to a person's confidence in institutions like the police and justice system and gives an idea of a person's belief in, and commitment to, conventional norms, laws and legal procedures. An additional indicator of attachment, commitment and belief is *religiousness*. It offers individuals with a clear normative orientation, which typically reduces crime (cf. Baier and Wright, 2001).

Berry's acculturation theory argues that CM facilitates such trust and religiosity by allowing immigrants to develop bonds to both the receiving society and the immigrant group's culture and institutions. Compared to exclusionism, it is more likely to grant immigrants opportunities to take on equitable roles (e.g. joining the police), which should foster institutional and generalized trust. 'Integrated' migrants also typically have better intra- and interethnic contacts (Berry, 2006), and if multiculturalism indeed facilitates such ties, as Berry's acculturation theory contends, then CM should be associated with higher levels of particularized trust. The literature is somewhat ambivalent about the CM-religiosity relationship. Berry's acculturation theory implies a positive relation between CM and religiousness as it facilitates immigrant groups in maintaining heritage cultures without fearing repercussions, also in relation to religion (Berry, 2006). However, some research suggests that exclusionism may also promote religiosity, especially in the second generation (Fleischmann and Phalet, 2012).

The literature thus leads us to expect a positive relationship between CM and social bonds as indicated by social and institutional trust and, possibly less so, religiosity. We thus hypothesize that the negative association between CM and immigrant crime decreases after

controlling the men's social bonds in the form of particularized trust, generalized trust, institutional trust, and religiosity (*H3*).

Collective efficacy theory (Sampson and Wilson, 2012) argues that communities can reduce crime, and address other shared interests, by exerting external social control. While social bonding theory mostly looks at internal social control by highlighting social ties *at the individual level* (e.g. whether a person has stronger or weaker attachments), collective efficacy theory focuses on external social control *at the community level*. Here, a collectively efficacious community is also expected to socially control community members who would be inclined to commit crimes, for example because they experience strain or have weaker internalized controls.

The individual-level ties that CM facilitates can thus be expected to also have effects *in the aggregate* at the community level. For example, a community's willingness and ability to intervene in shared problems requires that a sufficient number of community members trust each other and are willing and able to socialize with neighbours, for example. Part of the effectiveness of communities in solving shared public safety issues also depends on the community's willingness and ability to cooperate with the police, thus synthesizing informal and formal social control. Religious communities, too, are generally found to also exert such external social control (Brauer, Tittle and Antonaccio, 2013). Higher levels of trust and religiousness under CM at the *individual level* can thus similarly be expected to also have aggregated effects at the *community level*. We thus hypothesize that the association between CM and immigrant crime decreases after controlling the local immigrant group's perception of neighbourhood efficacy, its neighbourhood contacts, its institutional trust, and its religiousness (*H4*).

Data and methodology

Data came from the Netherlands Longitudinal Lifecourse Study (NELLS) Wave 1, a large-scale sociological study on the opinions and living situation of people living in the Netherlands (Tolsma *et al.*, 2013). Basic demographic and socio-economic variables, such as age, household structure and education, were measured using face-to-face interviews, which were followed by a self-completion questionnaire. Most information used here, including the information on criminal offending, is from the self-completion questionnaires, which are less sensitive to social desirability bias than interviews.

The NELLS is representative for the Dutch population ($N=5,312$), including the Turkish- and Moroccan-Dutch minorities, which were oversampled. The survey was carried out between December 2008 and May 2010 and was collected in the four largest cities and 31 other, randomly selected, Dutch municipalities. About half of the Turkish- and Moroccan-Dutch minorities are residing in these 35 municipalities. The NELLS researchers enriched the data by adding information from Statistics Netherlands on certain neighbourhood and municipality characteristics, including level of urbanization (municipality) and ethnic composition (neighbourhood).

We made several choices when deciding on our analytical sample. CM was measured using the native-Dutch respondents only ($n=2,556$), while the regression analysis only pertain to male participants with a first- or second-generation Turkish or Moroccan migration background ($n=1,107$). In order to deal with missing data, listwise deletion was used. Multiple imputation was not feasible as most missing data pertained to the dependent variable – criminal offending. We deleted all cases that had missing data on any of the variables included in the regression models, but respondents who did not provide information about their income were kept in the analysis by creating a dummy ‘income missing’. Our final analytical sample consisted of 911 observations across all models. These men were living in 138 different neighbourhoods, as defined by Statistics Netherlands.

Dependent variable

Five items measure *criminal behaviour*. The participants were asked if, in the last 12 months, they had been involved in the following activities: ‘stolen something from a person or a shop’, ‘damaged or demolished property of others’, ‘carried a weapon (knife, gun)’, ‘threatened someone’, and ‘kicked or punched someone or participated in a fight’. Respondents could answer on a four-point Likert-scales (‘never’, ‘once’, ‘two–three times’ and ‘four times or more’). Participants could also answer, ‘I don’t want to say’, which was coded as missing. We calculated the sum of reported crimes for each participant with the category ‘never’ coded as 0, the category ‘once’ as 1, ‘two–three times’ as 2.5, and ‘four times or more’ counting as 4.

Independent variables

There is considerable debate about the definition and operationalization of ‘community’ (Shearer *et al.*, 2007), and we eventually used measures at both the municipal and neighbourhood level, basing our decisions on the level used on both substantive arguments (e.g. ‘will this aspect of collective efficacy mostly operate at the municipal level or at the neighbourhood level?’) and statistical arguments (‘which operationalization leads to the best model fit?’).

The dominant group’s *acculturation orientation* was operationalized by averaging relevant scores of all inhabitants with a native-Dutch background (operationalized as having two parents born in the Netherlands) by municipality. We had several discussions on Berry’s notion of the ‘dominant group’: there is considerable ethnic diversity in the Netherlands, especially in cities, and ‘established’ first- and second-generation immigrants (e.g. Dutch citizens) should perhaps also be included. We decided to only use the scores of respondents with two Netherlands-born parents as Berry describes the dominant group in ethnic rather than

civic terms, and we wanted to remain close to his acculturation theory. The municipal level is the most appropriate level for this community measure, as most people spend a considerable amount of time outside of their direct neighbourhood, while relevant policy decisions are also taken at the municipal level – e.g. whether institutions that matter to the immigrant community are facilitated or not.

The following items measured tolerance: (1) It would be better for our country if all inhabitants had the same customs and traditions, (2) It would be better for our country if different beliefs exist, (3) It would be better for our country if all inhabitants spoke the same language, and (4) Immigration to our country has to stop to reduce tensions. These items were measured on five-point Likert scales ranging from 1 ‘disagree strongly’ to 5 ‘agree strongly’. After reverse coding some of the items, we obtained a scale with a fair internal consistency ($\alpha = .65$). Reliability could not be improved by dropping items.

To measure perceived social distance to Turkish- and Moroccan-Dutch communities two similar sets of three items were used. The items asked: ‘I have a problem with someone of Turkish/Moroccan origin (1) becoming my boss, (2) moving next door, and (3) marrying my son/daughter’. The questions were measured on three-point scales: 1 ‘no problem at all’, 2 ‘not a problem’, and 3 ‘would be a problem’. The Cronbach’s alpha for perceived social distance indicated excellent internal consistency ($\alpha = .93$).

The aggregated scores on tolerance correlated negatively and strongly with aggregated social distance ($r = -0.78$), and the items loaded strongly on one underlying construct. We therefore decided to calculate a single score on a 1–3 scale, which we called *community multiculturalism* (CM), by averaging the scores for tolerance, which we recoded to a 1–3 scale, and the inverted scores for perceived social distance. In Berry’s model, variation in CM thus runs ‘diagonally’ from exclusionism to multiculturalism. Segregationalism and assimilationism cannot be separately identified at the municipal level in the Netherlands.

To operationalize strain theory, we used *perceived ethnic discrimination* and *SES*. *Perceived ethnic discrimination* was operationalized by averaging five items: ‘Did you in any of the following situations experience that you were discriminated on the basis of your ethnic background (1) during a job application, (2) at work, (3) at school, (4) on the street, in stores, or in public transport, (5) in associations or sports clubs, (6) during nightlife or discotheques?’ The three answer options were 0 ‘no, never’, 1 ‘yes, once in a while’ and 2 ‘yes, quite often’. The Cronbach’s alpha of these items indicated a very good internal consistency ($\alpha = .82$). Participants’ *SES* was assessed using *monthly income* and *educational attainment*. Monthly income of the respondent, and his possible partner, was classified into ‘low’ (net monthly income up to €1,499), ‘middle’ (€1500–€2,499) and ‘high’ (€2500 or more). For the 91 participants who did not report income we created a dummy called ‘missing income’. Highest educational attainment (in the Netherlands or elsewhere) was classified into: ‘no formal education or primary education’, ‘secondary education’ (high school, lower professional education), and ‘tertiary education’ (higher professional education, university degrees). When participants were still attending school their unfinished level of education was used.

Social bonding theory was operationalized using four individual-level variables: *particularized trust*, *generalized trust*, *institutional trust* and *religiosity*. *Particularized trust* was measured with ‘I know many people I can trust completely’ with answers ranging from 1 ‘totally applicable’ to 4 ‘totally not applicable’. *Generalized trust* was based on ‘Nowadays you really do not know who you can trust’, measured on a Likert-scale ranging from 1 ‘completely agree’ to 5 ‘completely disagree’. *Institutional trust* was based on ‘Please indicate how much trust you have in the police and justice’, with four answering options ranging from ‘a lot’ to ‘very little’. *Religiosity* was based on ‘How important is religion to you personally?’ with answering options ranging from 1 ‘very important’ to 5 ‘not important at all’. Some items were reverse coded, so that higher scores indicated higher trust and religiousness.

Collective efficacy theory was operationalized using four indicators, two at the neighbourhood level and two at the municipal level. At the neighbourhood level, we used the local immigrant groups' *perceived neighbourhood collective efficacy*, which is average score of all Turkish- and Moroccan-Dutch respondents, including female respondents, living in a given neighbourhood on six 4-point items, each ranging from 0 to 3, namely people in this neighbourhood: (1) 'greet each other', (2) 'trust each other', (3) 'go along well', (4) 'know each other', (5) 'like to help each other' and (6) 'would say something against youth causing nuisance' ($\alpha = 0.84$). As an additional neighbourhood indicator, we used the local immigrant community's *degree of neighbourhood contact*, which is average score of all Turkish- and Moroccan-Dutch respondents living in a given neighbourhood on a seven-point scale from never (0) to daily (6). At the municipal level, we used the local immigrant community's *trust in the police and justice system* and its *religiousness*. These measures were obtained by averaging the individual scores of all residents of Turkish or Moroccan origin by municipality respectively. We also experimented with measures that were based on the scores of all local respondents (including those of native-Dutch origin), which led to comparable findings, but a somewhat worse model fit. Immigrant crime thus seems to be controlled less by general local levels of local collective efficacy than by forms of collective efficacy with a considerable involvement of the local immigrant group, which partially seem to transcend the immediate neighbourhood.⁵

Confounders

As individual-level controls we used *age* (and its square divided by one-hundred to take the age-crime curve into account (Hirschi and Gottfredson, 2017)), *immigrant generation*, *national origin* and *household composition*. *Immigrant generation* is categorized into two groups. First-generation immigrants were born in either Turkey or Morocco; second-generation immigrants were born in the Netherlands and had at least one parent born in Turkey or Morocco. Immigrants are often found to have a lower prevalence of criminal behaviour than their native-born children (Bersani, 2014), although only limited generational differences in self-reported offending have been found (Leerkes et al., 2019). We controlled *national origin* to account for possible ethnic differences in offending; the Turkish-Dutch are typically found to have somewhat lower crime rates than the Moroccan-Dutch, although ethnic differences in self-reported offending are small (Leerkes et al., 2019). These ethnic differences are usually attributed to differences in intra-ethnic social cohesion (cf. Bovenkerk and Fokkema, 2015). Three dummies measure *household composition*: ‘living with partner/child’, ‘living with parents’ and ‘other’. Household composition is a potential confounder since living with a spouse or having children is generally considered to prevent crime (Glowacz and Born, 2015).

At the municipality level we controlled *degree of urbanization*, which is taken from Statistics Netherlands and has four categories: ‘small village’, ‘big village’, ‘small city’ and ‘big city’. Criminal behaviour is generally more prevalent in big cities (Glaeser and Sacerdote, 1999), possibly suppressing the effects of CM, which also has a positive relationship with urbanization. We also controlled the *percentage of co-ethnics* at both the municipal and neighbourhood level, using Statistics Netherlands data. The percentage of co-ethnic is defined as the number of first- and second-generation immigrants of Turkish (for ‘Turkish’ respondents) or Moroccan (for ‘Moroccan’ respondents) origin as a percentage of the number of residents in the municipality and neighbourhood respectively. The latter controls we used in

order to rule out the possibility that CM-related differences in social bonds merely reflect municipal or neighbourhood differences in the opportunity and/or need to interact with co-ethnics.⁶

Analytical strategy

The hypotheses were tested in Stata 16 using weighted negative binomial regression with robust standard errors allowing for clustering of observations at the municipal level. Robust regression was preferred to multilevel regression, because the NELS includes individual-level weights only, making proper weighted multilevel analyses difficult (highly similar results were obtained using unweighted multilevel analysis). Negative binomial regression was used because the dependent variable – the amount of self-reported crimes – was highly skewed (cf. Land, McCall and Nagin, 1996).

We estimated five models. The first specified the relation between CM and criminal behaviour, while controlling the demographic variables mentioned. It tested *H1* and served as a benchmark model. The strain indicators were added to Model 1 in Model 2, the social bonds indicators were added in Model 3, and collective efficacy measures were added in Model 4. Finally, we estimated a fifth model (M5) combining all the variables in M1–M4. Hypothesis 2–4 were tested by comparing the more complex models to the benchmark model (e.g. we tested *H2* by comparing the coefficient of CM in Model 2 and Model 5 to the coefficient of CM in Model 1). Postestimation tests did not indicate multicollinearity issues for the variables of interest.⁷ As an additional control, Model 1 and Model 2 (without perceived discrimination) were also estimated for native-Dutch men and found no effect of CM among these men (not reported). Table 1 shows the means, standard deviations and the level of measurement per variable.

[Insert Table 1 here]

Results

[Insert Table 2 here]

Table 2 presents the regression results. In Model 1, CM has a negative association with the number of self-reported crimes. A one-unit increase in CM decreases the difference in logs of the expected number of criminal offences by 12.33 ($p < .001$). We thus accept *H1* that CM is associated with lower levels of immigrant crime. The effect is quite strong: an increase in CM with one standard deviation reduces the incidence rate ratio by 0.29 (not shown).

Model 2 adds *perceived ethnic discrimination* and *SES*, leading the coefficient of CM to go down from -12.33 to -10.94 ($p < .01$), a decrease of 11.3%. A notable part of the association between CM and criminal behaviour is thus explained by differences in strain, leading us to accept *H2*. Additional analyses (not shown) indicate that perceived discrimination, educational attainment and income all contribute to the decrease. We also find that a low income has a significantly weaker effect on crime when CM increases, which could indicate lower vulnerability to certain strains under CM.

Model 3 adds the individual-level indicators of social bonds, leading the coefficient of CM to go down from -12.33 to -11.00 ($p < .001$). That decrease of 10.7% suggests that the negative association between CM and crime is partly explained by individual-level social bonds, leading us to accept *H3*. Only *particularized trust* and *religiousness* (significant in Model 5) turn out to contribute significantly and independently to the decrease. Individual-level generalized trust and institutional trust are positively associated with CM, but do not predict immigrant crime.

The collective efficacy indicators are added in Model 4, leading the coefficient of CM to decrease from -12.33 to -7.02 ($p < .05$), a decrease of 41.1%. That observation leads us to accept *H4*. All four indicators of collective efficacy independently contribute to the decrease.

When testing all theories simultaneously in one comprehensive model, the coefficient of CM is no longer significant at conventional levels of significance ($b = -2.97$, $p = .06$), suggesting that the mechanisms of strain, social bonds and collective efficacy indeed explain (most of the) the negative association between CM and immigrant crime.

Discussion

Immigrants' context of reception codetermines immigrant incorporation patterns, and related outcomes such as crime. Departing from acculturation theory, we conducted two interrelated research projects. The projects aim to (1) contribute to the discussion on the (dis)advantages of multiculturalism for immigrant incorporation and related outcomes, (2) help solve the puzzle of the contextual variation in immigrant crime through linking Berry's acculturation theory with relevant sociological-criminological theory, and (3) show the usefulness of going beyond the country-level and formal policy models when studying immigrants' context of reception and its influences. The projects focused on municipal variation in CM in the Netherlands and municipal variation in criminal behaviour among men with a first- or second-generation Turkish or Moroccan background. In the first project, we focused on police data, and conducted indirect tests of mechanisms that, in our view, promote a negative relationship between CM and immigrant crime. The second project, which is reported here, focused on self-reported offending and involved more direct tests.

We find significant negative effects of CM on immigrant crime in both projects, and also find direct and more indirect evidence that three main mechanisms cause these effects: CM reduces crime (1) by reducing strains in the immigrant group, (2) by strengthening social bonds

in the immigrant group, including intra-ethnic bonds, and (3) by promoting the immigrant groups' involvement in collective efficacy.

All these observations indicate that CM reduces immigrant crime, and that the effects observed in the first project do not, or not only, reflect local differences in crime reporting and enforcement. Furthermore, in spite of not having conducted longitudinal analyses, we also feel safe to conclude that the negative association between CM and immigrant crime is not, or not only, caused by reverse causality: the evidence for the hypothesized paths between CM and crime make strong reverse causality unlikely (in the first project, two-stage regression analyses also pointed in that direction). The findings do not lend much support to Koopman's (2010) claim that multiculturalism impedes immigrants' labour market positioning, at least not when community attitudes rather than national policies are considered.

Evidently, we do not claim that CM annuls all immigrant crime, or that it necessarily reduces all types of crime. When comparing the two projects, we observe that the association between CM and self-reported offending is stronger than the association between CM and registered crime. This may indicate that CM primarily reduces relatively common and 'lighter' forms of crime: surveys measure less serious types of crime than are typically registered by the police. Possibly, CM may also trigger mechanisms that *increase* specific forms of offending. Higher levels of trust and neighbourhood contacts may increase opportunities to commit certain crimes, such as certain 'organized', non-street crimes that police data and surveys measure poorly. Higher level of generalized trust and less institutional distrust may diminish the fear of formal punishment, which for some reduce the threshold to commit certain crimes (e.g. by weakening the fear of deportation). Possibly, such opposite mechanisms explain why individual-level institutional trust and generalized trust did not have significant negative effects on the men's crimes. Should such opposite mechanisms matter, they were clearly too weak to

prevent a negative association between CM on crime among men in the two immigrant groups examined.

Future research could delve deeper into factors that are likely to moderate the effects of CM on crime, including immigrant generation, local size of the immigrant group, and ethnic origin. The NELLS survey does not have enough observations to test whether the effects CM differ by generation, local size of the immigrant group, and national origin, which led us to conduct a pooled analysis.⁸ In the first project, in which we did have that statistical power, we found that the effects of CM are concentrated among first-generation immigrants, among immigrants living in municipalities with a substantial local ethnic community, and among the Turkish-Dutch (no significant effects were found for second-generation men with a Moroccan background). It is probable that CM's tolerance for ethno-cultural diversity is partially responsible for its advantageous effects on strain, social bonds, and collective efficacy. If that is so, then its effects on crime should be weaker when the desire and/or ability of immigrant groups to maintain the heritage culture is low. This should be the case in second- and later immigration generations, in contexts with few co-ethnics, and in more 'fragmented' and socially excluded immigrant groups like the Moroccan-Dutch (cf. Fennema and Tillie, 1999). When the local size of the immigrant group is small, its level of social and institutional trust will also have a more limited impact on the extent to which residents with a migration background are exposed to collective efficacy: if there are few immigrants, collective efficacy will mostly depend on the dominant group. Possibly, CM mostly benefits the first generation, while assimilationism is more favourable for later generations, but that is not something we could test directly as 'community assimilationism' (and separatism) could not be identified in the Netherlands at the municipal level.

Another avenue for future research is to rethink some of Berry's concepts. We focused on connecting his theory with relevant sociological/criminological theory, and wanted to stay

close to his framework, which we regard as parsimonious and useful. We should nonetheless consider adding more complexity and de-essentialized thinking to it. The notion of the ‘dominant group’, for example, could be made more dynamic by also including certain ‘established’ first- and/or second-generation immigrants. We may also want to distinguish different types of integration, and different dominant groups, at *different levels* (e.g. local, national, transnational). By considering local-level variation among the dominant group, we have gone some way in exploring the possibility of a plurality of dominant subgroups within a given country.

Finally, future research could examine how CM is related to other indicators of social cohesion than crime, perceived discrimination, religiousness, trust, and neighbourhood contacts. Based on the present results, we suspect that CM also affects immigrants’ fear of crime, interethnic identifications, neighbourhood satisfaction, and so forth. Furthermore, if Berry’s acculturation theory is right, CM should also be associated with better outcomes in the population at large when levels of ethno-cultural diversity reach a certain threshold. There is some evidence that migration-related diversity puts pressure on social cohesion at local and national levels in particular (cf. Van der Meer and Tolsma, 2014), but such effects partially depend on how we all deal with that diversity.

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Table 1.

Descriptive statistics of the variables for Turkish and Moroccan participants.

	Level of measurement	Minimum	Maximum	Mean	Std. Dev.
Criminal behaviour	Individual	0	14	0.36	1.44
Community multiculturalism	Municipal	1.84	2.28	2.11	0.10
1 st generation	Individual	0	1	0.66	0.47
Turkish	Individual	0	1	0.52	0.50
Age	Individual	14	49	31.79	9.14
Age ² /100	Individual	1.96	24.01	10.94	5.57
Big city	Municipality	0	1	0.50	0.50
Small city	Municipality	0	1	0.29	0.45
Big village	Municipality	0	1	0.21	0.41
Living with partner/child	Individual	0	1	0.57	0.50
Living with the parents	Individual	0	1	0.27	0.44
Percentage of co-ethnics	Municipality	0.18	9.18	5.38	2.68
Percentage of co-ethnics	Neighbourhood	0	31.00	8.58	7.38
Perceived discrimination	Individual	0	2	0.44	0.45
Low income	Individual	0	1	0.45	0.50
Middle income	Individual	0	1	0.28	0.45
Missing income	Individual	0	1	0.10	0.30

Primary education	Individual	0	1	0.54	0.50
Secondary education	Individual	0	1	0.28	0.45
Particularized trust	Individual	1	4	2.94	0.75
Generalized trust	Individual	1	5	2.54	1.04
Institutional trust	Individual	1	4	2.38	0.86
Religiosity	Individual	1	5	4.33	0.97
Perceived neighbourhood efficacy	Neighbourhood	2.33	4	3.21	0.21
Neighbourhood contacts	Neighbourhood	1.79	6	4.08	0.58
Community trust in police and justice	Municipality	1.8	3.25	2.38	0.11
Community religiosity	Municipality	3.5	5.0	4.45	0.27

Table 2. Regression coefficients for the independent variables on criminal behaviour

	Model				
	M1	M2	M3	M4	M5
Community multiculturalism	-12.33***	-10.94***	-11.00***	-7.02***	-2.97 ⁺
Generation (ref. 2 nd generation)					
1 st generation	-0.18	-0.34	-0.25	0.08	-0.50
Ethnicity (ref. Moroccan)					
Turkish	-0.18	-0.14	-0.15	0.01	0.11
Age	-0.25*	-0.32**	-0.25*	-0.22*	-0.30**
Age ² /100	0.42*	0.52**	0.40**	0.32*	0.42**
Urbanization (ref. large city)					
City	-1.69**	-1.47**	-1.70**	-1.09***	-0.87***
Small town	-2.58**	-2.34**	-2.50***	-1.23*	-0.82 ⁺
Village	-3.15**	-2.65**	-2.54*	-0.42	1.54 ⁺
Household composition (ref. other composition)					
Living with a partner/child	-1.43***	-1.38***	-1.18***	-1.13***	-0.68**

Living with the parents	-0.58*	-0.96**	-0.46	-0.38	-0.73*
Percentage of co-ethnics municipality	0.11	0.08	0.12	0.16	0.12
Percentage of co-ethnics neighbourhood	-0.10*	-0.10*	-0.10**	-0.09*	-0.10**
Perceived discrimination		0.78**			1.34***
Monthly income (ref. high income)					
Low income		2.07**			2.27*
Middle income		2.39**			2.53*
Missing income		1.97+			2.72*
Educational attainment (ref. tertiary education)					
Primary education		1.87**			2.15**
Secondary education		1.58**			2.14***
Particularized trust (<i>individual</i>)			-0.63**		-0.81***
Generalized trust (<i>individual</i>)			0.08		0.15
Trust in the police (<i>individual</i>)			-0.02		0.25
Religiosity (<i>individual</i>)			-0.29+		-0.28*

Perceived neighbourhood efficacy				-1.21 ⁺	-1.24*
Neighbourhood contacts				-0.09	-0.41*
Community trust in police and justice				-1.21 ⁺	-4.55***
Community religiosity				-1.97***	-2.16***
Constant	30.08**	24.54**	30.00***	35.89***	34.43***

#Note. *** $p < .001$, ** $p < .01$, * $p < .05$, + $p < .10$

¹ While we focus on attitudes, CM may lead to *local* integration policies (Jørgenson, 2012; Scholten, 2013) and/or affect the implementation of national policies.

² We acknowledge that native-born sons and daughters of immigrants never migrated themselves and should perhaps be called first-generation native-born rather than ‘second-generation immigrants’, but we stick to established conventions here.

³ In the NELLS, the incidence density of self-reported crimes is about four times higher among Turkish- and Moroccan-Dutch men than among Turkish- and Moroccan-Dutch men (0.36 against 0.09)

⁴ As the NELLS did not measure self-esteem, we could not test whether there is a lower vulnerability to strain under CM, which possibly attenuates the relationship between strain and crime.

⁵ First-generation immigrants in particular indeed have more contact with co-ethnics than with other ethnic groups, and some forms of external social control in particular, such as community religiosity, will transcend the neighbourhood.

⁶ We also estimated models with percentage of co-ethnics and native-Dutch *in the neighbourhood*, which did not lead to substantively different conclusions.

⁷ In Model 5, all VIF values were between 1.14 and 3.60 with the exception of age (because age square is also included). The VIF value for CM ranges from 2.7 in Model 1 to 3.6 in Model 5.

⁸ When estimating Model 1 by generation and origin separately, the coefficient of CM was -22.5 for first-generation ‘Moroccans’ ($p < 0.01$, $n = 286$), 8.2 for second-generation ‘Moroccans’ ($p = 0.06$, $n = 151$), -31.6 for first-generation ‘Turks’ ($p < 0.01$, $n = 316$), and -9.54 for second-generation ‘Turks’ ($p < 0.05$, $n = 158$). When we estimated Model 1 separately for 18 municipalities with and 17 municipalities without at least 1,200 co-ethnics (as we did in project 1), the coefficient of CM is -16.77 ($p < 0.01$, $n = 817$) and -4.55 ($p = 0.5$, $n = 94$) respectively.

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