Ethnic fractionalisation and social cohesion: the relation between immigration, ethnic fractionalisation and potentials for civic, collective action in Germany

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Introduction

Inter-ethnic contact is an important research topic in the social sciences. Theoretically it is conceptualised as one dimension of migrant integration, namely social integration (e.g. Haug [2003]). But inter-ethnic contact is not only important for migrants. As has been shown several times throughout this work and by several other studies, inter-ethnic ties attenuate the negative impact of ethnic fractionalisation on trust in neighbours, collective efficacy and related indicators of social cohesion. Parallel to studies focusing on prejudices (e.g. Schlueter and Scheepers [2010]; Schlueter and Wagner [2008]), this means that ethnic fractionalisation seems to cause both a decline in social cohesion and a strengthening of the moderator that attenuates this decline. We are thus confronted with the dilemma of inter-ethnic co-existence and the question how it can be overcome: How do natives and migrants get into personal contact, if spatial proximity also stirs social isolation and refusal to mix? While I investigated the relation between ethnic fractionalisation and social cohesion in earlier chapters, I here focus on the other side of the dilemma, namely how natives and migrants establish personal contact. As dependent variable, I investigate weak neighbourhood acquaintanceship ties between migrants and natives, because earlier I have shown these to attenuate ethnic fractionalisation effects throughout earlier chapters. In addition, weak ties tend to bridge different groups (Granovetter [1973]) and are thus an important means of
integration into the neighbourhood at large, including various different inhabitants (Völker and Flap, 2007). General network theory (for a review see: Rivera et al. 2010) and theory on inter-ethnic contact in particular (Kalmijn, 1998) discuss three approaches of explaining (inter-ethnic) contact. **Proximity mechanisms** highlight the role of opportunities arising via spatial proximity or shared social foci, **assortative mechanisms** stress the importance of similarity, and **relational mechanisms** focus on the position of actors in existing networks. Yet, Rivera et al. (2010) criticise that while network theory suggests these different types of mechanisms to interact, only few studies provide empirical demonstrations of such interactions. Given this background, I analyse the brokering roles of children and inter-ethnic partners. Even on a contextual level, my results suggest that people living in regions with larger shares of children have more inter-ethnic neighbourhood acquaintances. As I will demonstrate, however, the brokering roles of children and inter-ethnic partners depends on the type of context. I exemplify this by showing how inter-ethnic partners amplify the opportunities arising via encounters at bars and restaurants, while children amplify those arising at playgrounds and parks.

**Theoretical Background**

Why do some people have more contact to neighbours of other ethnic background? In the following, I first introduce proximity, assortative and relational mechanisms, which are proposed as general explanations of why two persons are in contact with one another (for a review see: Rivera et al. 2010), but also why people entertain inter-ethnic contacts in particular (Kalmijn, 1998). I continue to discuss why these three types of mechanisms should not be seen as additive explanations, but that the establishment of relations is a process that involves their interaction.

**Proximity, Assortative and Relational Mechanisms** One approach of explaining the establishment of social relationships highlights **proximity mechanisms**, which denote the opportunities for contact that arise from a person’s geographic and social environment. Blau (1977) emphasises how social relations depend on a population’s social structure, meaning that when a population is not ethnically diverse, contacts will not be either. Feld (1981) expands this approach by highlighting the opportunities that arise from social foci around which activities are organised. Next to mere geographical proximity, opportunities for contacts also arise in associations, at work or in bars for example. Overall, this approach sees people’s (ego-)networks as a function of their social and geographical environment. Accordingly, the fact that next to affirmative findings (e.g. Vervoort et al. 2010), there are also studies that question the dependence of inter-ethnic contacts on
ethnic residential segregation (e.g. [Drever 2004]) are troubling from the perspective of this approach. Well in line are the findings that support the importance of language for inter-ethnic contact (e.g. [Martinovic et al. 2009b]). But in terms of language there is a principal difference between the perspective of natives and migrants. The existing evidence shows the importance of host-country language skills for migrants’ inter-ethnic contacts to natives. For natives, however, it rather seems crucial, whether those migrants who live in the same region or share social foci speak the host-country language.

A second approach for explaining contact between two persons stresses assortative mechanisms, which focus on persons’ similarity and complementarity. One of the best known mechanisms of this approach is the so called homophily mechanism, according to which people tend to form social ties to others who are alike (for a review see: [McPherson et al. 2001]). The general rationale behind this mechanism seems to be that by choosing others who are alike, people are more likely to meet acceptance of their beliefs, dress, habits and ethics. Moreover, misunderstandings are less frequent and people who are alike seem more trustworthy. Another reason for homophily is given by social identity theory ([Tajfel et al. 1971]). As discussed in Chapter 2, in-group favouritism results in a preference for acquaintances who are alike in terms of categories that we identify with. Accordingly, research on inter-ethnic contacts shows that people prefer a partner with the same ethnic background ([Qian and Lichter 2007]; [Kalmijn 1998]). Assuming that inter-ethnic contact is most likely between members of ethnic groups that are rather similar in religious or cultural terms, [Martinovic et al. 2009b] show the predominantly Christian Surinamese and Antillean migrants to have more native Dutch friends than the predominantly Muslim Turkish and Moroccan migrants. For Germany, [Martinovic 2010] similarly shows that Spanish and Yugoslav migrants, have more contact to natives than Turkish ones, however, Greek and Italian migrants do not. This is again surprising, given that Yugoslav migrants may also be Muslims in contrast to the vast majority of Italian and Greek migrants.

A final approach to explain contacts focuses on relational mechanisms and can be traced back to the work of [Simmel 1908], who studied triads and claimed that actors who are indirectly connected by a third person, will most likely be introduced to one another and establish a direct tie in the future. This particular relational mechanism is called tendency toward transitivity (for a review see: [Rivera et al. 2010]). The common acquaintance acts as broker. Relational mechanisms are important to explain inter-ethnic contacts, since one is likely to be introduced to further persons with a different ethnic background, as soon as one starts to entertain one inter-ethnic acquaintances. In line with this expectation, [Völker et al. 2008] show that having relatives of different ethnicity increases the number of inter-ethnic friends. Likewise, [Naucki 2001] shows that the amount of the parents’
inter-ethnic friends is associated with their children’s inter-ethnic friends. Finally, persons who get together with an inter-ethnic rather than co-ethnic partner, report to have more new inter-ethnic friends when they are re-interviewed a year later (Martinovic et al. 2009b).

The discussion above has elaborated how network theory explains a person’s inter-ethnic contacts to be a function of his or her social and geographical environment, preferences for similar or complementary and previously-existing contacts. Thereby, the three elaborated approaches offer seemingly additive answers to the question, why some people have more inter-ethnic contacts than others. Such a view is particularly appealing for survey research on inter-ethnic contacts, which tends to rely on an additive (regression) methodology. Most survey research on inter-ethnic contacts has therefore investigated the general, i.e. average explanatory power of factors such as inter-ethnic relatives, or ethnic residential concentration.

The Interaction of Proximity, Assortative and Relational Mechanisms

There are also examples of studies that investigate interaction effects, even though these tend to focus on the joint explanatory power of the same types of mechanisms. Schlüter (2012) for example shows how ethnic residential segregation negatively affects the number of inter-ethnic friends only for persons with little education. Those with high education are more mobile, which compensates for the limited opportunities for inter-ethnic contact that their neighbourhoods offer. This explanation stays in the realm of proximity mechanisms, but is able to provide a plausible answer to the question why earlier results on the role of ethnic residential segregation have been mixed by investigating interaction effects. Similarly, Martinovic et al. (2009a) show that immigrants’ co-ethnic cohort group sizes are less important, the longer an immigrant has stayed in the host country. Again, this shows two proximities to interact by compensating each other. Martinovic et al. (2009a) also provide evidence that the culturally more similar Antillean migrants are able to make use of the opportunities for inter-ethnic contacts that arise via longer stays in the Netherlands. This demonstrates the interaction of assortative and proximity mechanisms.

According to Rivera et al.’s review of the general literature on tie formation, such empirical demonstrations of the interaction of different types of mechanisms are rare, and in consequence the three approaches of explaining tie formation have “tended to progress in relative isolation” (Rivera et al. 2010, p. 108). This is unfortunate, since Schlüter’s (2012) example shows that investigations of interaction effects might solve debates on troubling findings. Moreover, according to network theory, such interactions, including those between different types of mechanisms, are much more frequent than the existing empirical research would suggest.
On a fundamental level, Kossinets and Watts (2009) emphasise that even modest preferences for similar others can be amplified by proximity and relational mechanisms. Following Fischer’s (1982) choice-constraint approach, all preferences are constrained by the composition of a person’s social and geographical environment. With regard to this assumption, Mollenhorst et al. (2007) show that the similarity of confidants can be explained by the social composition of the social context from which they know each other, i.e. neighbourhood, family, work and so on. However, one should not forget, as shown by DiPrete et al. (2011) for associations or Crowder et al. (2011) for neighbourhoods, that people also choose their social and geographical environment according to their preferences for others who are alike. Similarly, a preference for others who are alike results in networks where one’s friends’ friends also tend to be alike. Overall, this suggests tie formation to be an endogenous process in which modest preferences for homophily are amplified by growing limitations to meet people who are not alike through proximity or relational mechanisms. Kossinets and Watts (2009) are able to provide an impressive empirical demonstration by analysing the evolution of a university community’s network of e-mail exchanges over time.

Yet even on a less fundamental level, Feld (1981) argues that the tendency toward transitivity depends on shared social foci, meaning that a triad is most likely closed, if all actors share a focus of activity such as playing volleyball. While it is possible that two acquaintances are introduced merely because the shared friend wants them to know each other, an introduction is more likely when there are many opportunities to be introduced. Such opportunities arise from visiting bars, doing sport or sharing other social foci with one’s friends and acquaintances on a frequent basis. Taken from the angle of proximity mechanisms, a person is most likely to make contact to those persons in his tennis club, to whom he or she is introduced by others. Brokerage is not general, but tends to happen within the particular social and geographical spaces of proximity mechanisms. It is this theoretical argument, for which I want provide an empirical demonstration in this chapter.

In particular, I focus on the brokering roles of children and inter-ethnic partners. The latter is, as I have discussed above, well established in the literature on inter-ethnic contacts, including tests with longitudinal data. While these tests show a general brokering role of inter-ethnic partners, they do not provide evidence on the kind of contexts where inter-ethnic partners introduce a person to his or her co-ethnic acquaintances. Next to others, I assume that bars and restaurants are typical contexts where partners act as brokers and introduce their friends and acquaintances. Given this paper’s focus on inter-ethnic neighbourhood acquaintances, I thus hypothesise that the important and amplifying brokering role of inter-ethnic partners shows particularly in interaction with inter-ethnic encour-
Inter-Ethnic Neighbourhood Acquaintanceships

At local bars and restaurants (H1).

In contrast to inter-ethnic partners, I do not know a study that explicitly investigates the role of children in explaining inter-ethnic contact. The reason might be that a person’s child is not an example of an inter-ethnic contact who has an ego-network consisting of further potential inter-ethnic acquaintances. In addition, one might argue that parents fear potential disadvantages for their children’s development that they see as being associated with ethnic fractionalisation and thus tend to move to more homogeneous neighbourhoods and send their children to homogeneous schools and kindergartens. Such self-selection might explain why persons with children tend to have fewer inter-ethnic contacts in general, as can be seen from the undiscussed control variables of existing studies (e.g. Martinovic et al. 2009b). This overlooks, however, that in theory children can also be effective brokers. To begin with, they involve their parents with all kinds of new institutions such as schools or child care facilities, within which parents get to know other parents (Small 2009). Moreover, they are also effective brokers themselves, because they get into contact with other people easily and are unlikely to pay attention to a person’s ethnic background. A type of context where this seems most obvious is public parks and playgrounds. While playing, children draw their parents into the interaction, if a fight over a toy breaks out, they hurt themselves, or they are about to do something dangerous. Thereby children act as brokers and bring parents into contact with other parents. Whether these are inter-ethnic contacts depends on the opportunities to come across persons of different ethnic background that the geographical and social environment offers. This means that parallel to Schlueter’s (2012) example, an interaction effect might be necessary to show the brokering role of children. Given this background, I expect that the brokering role of children shows particularly at public parks and playgrounds given frequent inter-ethnic encounters (H2).

The brokering role of children is probably neither constrained to parks and playgrounds nor to parents in particular. Children might also act as brokers for baby sitters, their parents’ friends, or neighbours who watch them and bring these into contact with all kinds of neighbours at local ice cream stores or during a neighbourhood street fair for example. This explains why Logan and Spitze (1994) provide evidence for a general positive context effect of the share of children on levels of neighbourhood contacts. I expect the same to hold for inter-ethnic neighbourhood contacts, meaning that in regions with larger proportions of children, people have more inter-ethnic neighbourhood acquaintances (H3). The same holds for the regional share of inter-ethnic partnerships. Not only oneself, but also ones friends will eventually get into contact with the friends of ones inter-ethnic partner. Inter-ethnic partnerships bridge two — ethnically rather homogeneous — (ego-)networks. Yet, there are no publicly available sources for such data that
would allow to test the according hypothesis on the impact of the regional share of inter-ethnic partnerships. That said, the brokering role of children and inter-ethnic partners does probably not show in any context. I believe that bars and restaurants are not contexts where children frequently act as brokers and likewise inter-ethnic partners do not typically introduce acquaintances during walks through the park, which is why I will also investigate these non-plausible interaction effects.

In sum, the interactions of different (inter-ethnic) tie-generating mechanisms are understudied, even though some theoretically plausible mechanisms can only be shown in interaction with other factors. In my case, I believe that inter-ethnic partners and children act as brokers only in certain social contexts. Whether ignoring this has indeed overshadowed the brokering role of children so far, will be demonstrated below.

**Data and Methods**

**Dependent Variables and Predictors** For surveying respondents’ acquaintance networks, the EDCA-Survey entails items that are similar in design to a recently developed item of a special topical module of the 2006 General Social Survey (GSS), which was recently analysed by [DiPrete et al. (2011)](#). This “How many Xs do you know?” methodology was originally designed for McCarty et al.’s (2001) 1998 and 1999 survey in order to estimate sizes of ego networks. Unfortunately, inter-ethnic acquaintanceships between migrants of different ethnicity, for example between an Indian and a Polish migrant, cannot be investigated and accordingly this chapter focuses on inter-ethnic contact between natives and migrants. For their neighbourhood sub-network participants were asked:

“Now I am going to ask you questions about your acquaintances in the neighbourhood. With acquaintances I mean people who you know by name and with whom you have a chat frequently, if you come across.

How many of your acquaintances from the neighbourhood have a migration background?

And how many of your acquaintances from the neighbourhood are of German descent?”

As in the GSS, the interest of this chapter lies in weak ties to relatively large groups, which is why it would be infeasible to ask respondents to estimate the exact number of acquaintances. The EDCA-Survey therefore follows the GSS’s example and asked about the numerical ranges of none, one, two to five, six to ten and ten or more acquaintances. Following Zheng et al.’s (2006) suggestion, I took the middle value of each range as the respondents’ number of acquaintances and
set the value for the category of ten or more to eleven. I also ran models with the maximum value set to 15 (see Tables F.3 and F.4 in the appendix) and 25 (see Tables F.5 and F.6 in the appendix), yet found that the principle structure of the results does not change.

Given these items, I analyse two dependent variables in this chapter. The first one is the absolute number of inter-ethnic neighbourhood acquaintances, because all theoretical mechanisms discussed aim at explaining how contacts are established and not how certain contacts become of larger relative frequency. Yet from another point of view, some people might have few contacts in general, but a rather large share of inter-ethnic contacts among them. Furthermore, there could be ethno-cultural differences in the understanding who counts as acquaintance that result in group-specific over- or underestimations of contact numbers. Hence, I also analyse the relative share of inter-ethnic neighbourhood acquaintances, which runs from zero (no inter-ethnic acquaintances) to one hundred (only inter-ethnic acquaintances):

\[
\text{Relative Share} = \frac{\text{Inter-Ethnic Acquaintances}}{\text{Inter-Ethnic Acquaintances} + \text{Co-Ethnic Acquaintances}}
\]

There is a problem, however, with 114 respondents who have no acquaintances in the neighbourhood at all. For these the share is mathematically not defined, because there is no solution to a division by zero. I do not consider these 114 respondents in the results discussed in this chapter. However, Tables F.7 and F.8 in the appendix show that the results generally hold when these respondents’ relative shares of inter-ethnic neighbourhood acquaintances are set to 0, 50 or 100.

To test my hypotheses, one indicator variable identifies parents with children up to the age of ten, on the assumption that older children are rarely supervised when going to play in parks. Similarly, the regional proportion of children considers only children up to the age of ten. A second indicator variable identifies persons with an inter-ethnic partner, which I either defined as having a native German partner in the case of migrant respondents or as having a partner with migration background for native German respondents. The two indicator variables are interacted with two items that measure the frequency of inter-ethnic neighbourhood encounters. Respondents were asked how often they come across or encounter (a) Germans, in case they are migrants, or (b) migrants, in case they are natives. One item asks about visits to the neighbourhood’s bars, restaurants and other public houses, while the other asks about parks, playgrounds and other public places in the neighbourhood. In particular, the respondents were asked:

“How often do you encounter persons with a migration background/persons of German descent in your neighbourhood when you . . .

\[^1\]This context information was derived from the Federal Statistical Office of Germany: www.destatis.de
...visit bars, restaurants, tee houses, pubs or other public houses?
...visit public parks, public places or playgrounds?”

While the German phrasing of these items says “treffen auf”, which stands in contrast to a planned meeting with someone and rather means “coming across” or “running into”, I have to acknowledge that those people who are encountered probably also entail known acquaintances. An empirical relation between the frequency of inter-ethnic encounters and the number of inter-ethnic acquaintances thus most likely contains both directions of causality: People have more acquaintances because of the opportunities the frequent encounters offer, but they also encounter people of other ethnic background more often, the more inter-ethnic acquaintances they have. For this reason, one should be cautious in interpreting the direct effects of these items, and instead focus on the brokering role of children and inter-ethnic partners that are the topic of this chapter.

Table 7.1: Descriptive Statistics of the Dependent and Explanatory Variables

<table>
<thead>
<tr>
<th>Natives</th>
<th>Mean</th>
<th>SD</th>
<th>CV</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute Number of I-E Nbh. Acquaintances</td>
<td>2.43</td>
<td>3.16</td>
<td>1.30</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Relative Share of I-E Nbh. Acquaintances</td>
<td>16.93</td>
<td>19.48</td>
<td>1.15</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>I-E Encounters at Parks and Playgrounds</td>
<td>1.87</td>
<td>1.31</td>
<td>0.70</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>I-E Encounters at Bars and Restaurants</td>
<td>1.60</td>
<td>1.27</td>
<td>0.79</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Young Children</td>
<td>0.18</td>
<td>0.39</td>
<td>2.10</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>I-E Partner</td>
<td>0.07</td>
<td>0.26</td>
<td>3.61</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Regional Out-Group Size</td>
<td>15.56</td>
<td>9.03</td>
<td>0.58</td>
<td>1.72</td>
<td>36.58</td>
</tr>
<tr>
<td>Aggregate Level</td>
<td>13.98</td>
<td>8.44</td>
<td>0.60</td>
<td>1.72</td>
<td>36.58</td>
</tr>
<tr>
<td>LSU</td>
<td>0.01</td>
<td>0.21</td>
<td>15.04</td>
<td>-0.61</td>
<td>0.45</td>
</tr>
<tr>
<td>Aggregate Level</td>
<td>0.02</td>
<td>0.23</td>
<td>12.89</td>
<td>-0.61</td>
<td>0.45</td>
</tr>
<tr>
<td>Regional Share of Children</td>
<td>13.25</td>
<td>1.66</td>
<td>0.13</td>
<td>9.73</td>
<td>16.64</td>
</tr>
<tr>
<td>Aggregate Level</td>
<td>13.56</td>
<td>1.76</td>
<td>0.13</td>
<td>9.73</td>
<td>16.64</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Migrants</th>
<th>Mean</th>
<th>SD</th>
<th>CV</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute Number of I-E Nbh. Acquaintances</td>
<td>7.84</td>
<td>3.70</td>
<td>0.47</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Relative Share of I-E Nbh. Acquaintances</td>
<td>60.90</td>
<td>25.69</td>
<td>0.42</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>I-E Encounters at Parks and Playgrounds</td>
<td>2.68</td>
<td>1.24</td>
<td>0.46</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>I-E Encounters at Bars and Restaurants</td>
<td>2.52</td>
<td>1.38</td>
<td>0.55</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Young Children</td>
<td>0.31</td>
<td>0.46</td>
<td>1.49</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>I-E Partner</td>
<td>0.20</td>
<td>0.40</td>
<td>1.98</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Regional Out-Group Size</td>
<td>81.46</td>
<td>8.62</td>
<td>0.11</td>
<td>63.42</td>
<td>98.28</td>
</tr>
<tr>
<td>Aggregate Level</td>
<td>86.02</td>
<td>8.44</td>
<td>0.10</td>
<td>63.42</td>
<td>98.28</td>
</tr>
<tr>
<td>German Language Skills</td>
<td>3.12</td>
<td>1.16</td>
<td>0.37</td>
<td>0.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Regional Share of Children</td>
<td>13.48</td>
<td>1.41</td>
<td>0.10</td>
<td>9.73</td>
<td>16.64</td>
</tr>
<tr>
<td>Aggregate Level</td>
<td>13.56</td>
<td>1.76</td>
<td>0.13</td>
<td>9.73</td>
<td>16.64</td>
</tr>
</tbody>
</table>

Next to these variables, the models include as further predictors the regional out-group size (which for natives is defined as the share of migrants and for migrants the share of natives), migrants’ German language skills or the average migrant host-country language skills (similar to the LSU investigated in Chapter 4), and a dummy variable that indicates the country or region of origin. In addition, the models control for the local unemployment rate, population density, crime
rate, age, educational level, years spent in the neighbourhood, homeownership and gender. Table 7.1 shows the descriptive statistics of all variables that have not been part of earlier analyses.

**Modelling Strategy** The descriptives of Table 7.1 are shown separately for natives and migrants to highlight the core differences in the distribution of the two dependent variables and the regional out-group size. Whereas migrants have many native acquaintances and face clear regional majorities of natives, the opposite is the case for natives. These distributions therefore lack counter-factual cases, meaning there are no migrants and natives who face comparable situations. Even though the theoretical arguments should hold in general, I estimate separate models for natives and migrants for methodological reasons.

In particular, I model the absolute number and the relative share of inter-ethnic neighbourhood acquaintanceships by linear regression. One may feel uneasy about modelling the absolute number of inter-ethnic acquaintances as linear, since the original scale is ordinal in a strict way. Models such as ordered logistic or Poisson regression might seem more appropriate. Similar concerns relate to the prediction of the relative share of inter-ethnic contacts, which is a proportion. Against these concerns, I choose to run linear regressions for two reasons. First, I take sides with Angrist and Pischke (2009), who argue that

“[…] the regression CEF [Conditional Expectation Function, author’s note] theorem tells us that even if the CEF is nonlinear, regression provides the best linear approximation to it. The regression CEF theorem is our favorite way to motivate regression. The statement that regression approximates the CEF lines up with our view of empirical work as an effort to describe the essential features of statistical relationships without necessarily trying to pin them down exactly” (Angrist and Pischke 2009, p. 38).

Second, the more recent discussion on the pitfalls of non-linear models, such as logistic and probit regression, has shown that the comparison of groups, as well as their interaction with other variables is problematic (e.g. Mood 2010). One proposed solution to this problem of non-linear models is to use classical linear regression with robust standard errors (e.g. Mood 2010), even if this comes at the cost, that the nonlinear CEF is only approximated. This is the modelling approach taken here.

**Results**

The results of my analysis of the absolute number and relative share of inter-ethnic neighbourhood acquaintances are displayed in Table 7.2 for natives and Table 7.3
for migrants. Before I present my findings on the brokering roles of children and inter-ethnic partners, I briefly comment on how my results relate to earlier studies on inter-ethnic contacts, most of which have investigated strong ties such as friendships or even intermarriages. Model 1 of Tables 7.2 and 7.3 suggests that

<table>
<thead>
<tr>
<th>Table 7.2: Natives’ Inter-Ethnic Neighbourhood Acquaintanceships</th>
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<tbody>
<tr>
<td><strong>Absolute Number</strong></td>
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<tr>
<td>---------------------</td>
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<tr>
<td><strong>Regional Out-Group Size</strong></td>
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<td></td>
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<tr>
<td><strong>LSU</strong></td>
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<td><strong>Young Children</strong></td>
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<tr>
<td><strong>Regional Share of Children</strong></td>
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<tr>
<td><strong>I-E Encounters at Bars and Restaurants</strong></td>
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<tr>
<td><strong>Observations</strong></td>
</tr>
<tr>
<td><strong>R²</strong></td>
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<tr>
<td><strong>AIC</strong></td>
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</tbody>
</table>

Cluster-robust standard errors in parentheses, + p < 0.1, * p < 0.05, ** p < 0.01

Effects of control variables are shown in Table F.1 on page 265

the findings of earlier studies, by and large also apply to inter-ethnic neighbourhood acquaintanceships in Germany. For both natives and migrants it is true that the two dependent variables, i.e. the absolute number and relative share of inter-ethnic neighbourhood acquaintanceships, increase with the local out-group size. Migrants’ absolute number of native neighbourhood acquaintances only stands in a marginally significant relation to the local share of natives, but this is likely due to a ceiling effect. As can be seen from Table 7.1 that displays the descriptives, the average local out-group size for migrants, meaning the average local share of natives, lies at about 81 percent. The proximity approach finds further support in the positive and highly significant coefficients of migrant respondents’ German
### Table 7.3: Migrants' Inter-Ethnic Neighbourhood Acquaintanceships

<table>
<thead>
<tr>
<th>Origin, Reference: Turkey</th>
<th>Absolute Number</th>
<th>Relative Share</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td>Western Countries</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Southern Europe</td>
<td>-0.0502</td>
<td>-0.0656</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>0.281</td>
<td>0.292</td>
</tr>
<tr>
<td>Former Soviet Union</td>
<td>-0.247</td>
<td>-0.255</td>
</tr>
<tr>
<td>Asia</td>
<td>-0.0519</td>
<td>-0.0735</td>
</tr>
<tr>
<td>Grand Middle East</td>
<td>0.284</td>
<td>0.278</td>
</tr>
<tr>
<td>Other</td>
<td>0.146</td>
<td>0.149</td>
</tr>
<tr>
<td>Regional Out-Group Size</td>
<td>0.0242*</td>
<td>0.0377*</td>
</tr>
<tr>
<td>German Language Skills</td>
<td>0.0684</td>
<td>0.0692</td>
</tr>
<tr>
<td>I-E Encounters at Parks and Playgrounds</td>
<td>0.247**</td>
<td>0.200*</td>
</tr>
<tr>
<td>I-E Encounters at Bars and Restaurants</td>
<td>0.397**</td>
<td>0.410**</td>
</tr>
<tr>
<td>I-E Partner</td>
<td>0.149**</td>
<td>0.585</td>
</tr>
<tr>
<td>Young Children</td>
<td>0.0926</td>
<td>-0.326</td>
</tr>
<tr>
<td>Regional Share of Children</td>
<td>0.0989</td>
<td>0.0995</td>
</tr>
</tbody>
</table>

*Cluster-robust standard errors in parentheses, * p < 0.1, ** p < 0.05, *** p < 0.01

Effects of control variables are shown in Table F.2 on page 266

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language skills. Taken from the angle of natives, the importance of average regional migrant host-country language skills (LSU) does not show. Even though the coefficients point in the expected positive direction, natives who live in regions where migrants have better German skills do not report significantly larger numbers nor shares of migrant neighbourhood acquaintances. As in Chapter 4, this is probably due to the large measurement error of the index that was aggregated from the EDCA-Survey itself.

Figure 7.1: Migrants’ Inter-Ethnic Neighbourhood Acquaintanceships by Origin

The results are also in line with earlier findings on homophily as the migrant-specific analysis shows. Figure 7.1 visualises the country of origin variables of Model 1 in Table 7.3. The figure shows migrants’ absolute number and relative share of native neighbourhood acquaintances by origin, controlled for all other variables. When out-group size, host-country language skills and all the other variables are accounted for, there hardly remain any differences in the absolute number of native neighbourhood acquaintances. In line with the homophily mechanism, migrants from Western Countries are the only ones that report a significantly larger number of native neighbourhood acquaintances than Turkish migrants, who are the reference in the models. The picture is more differentiated, when we focus on the relative share of contacts to natives. This might indicate that the relative share is less prone to ethno-cultural differences in the understandings of who counts as acquaintance, or habits in entertaining rather large or small (ego-
networks. It is therefore probably a more reliable indicator with regard to ethnic group comparisons. In any case, it is migrants from neighbouring European and other Western countries who report comparatively large shares of neighbourhood contacts to natives, which again reflects earlier findings.

The final predictor that was also part of earlier investigations is having an inter-ethnic partner and again, my results support earlier findings. Both native and migrant respondents with an inter-ethnic partner report larger absolute numbers and relative shares of inter-ethnic neighbourhood contacts. A similar finding on a general brokering role of children shows neither for native nor for migrant parents. And yet, I find support for my hypothesis that people who live in regions with larger shares of children report to have more inter-ethnic neighbourhood acquaintances both in absolute as well as in relative terms — at least for natives. What Logan and Spitze (1994) have shown for neighbouring in general also holds for inter-ethnic neighbourhood acquaintanceships in particular; the significant context effect demonstrates a general integrating function of children that is not particular to parents. Why does the brokering role of children not show on the individual level of parents? As I have argued above, the average effect of having children might be ambivalent, because parents probably self-select into homogeneous contexts. But I have also argued that brokering happens predominantly in specific social contexts. If this hypothesis is true, I should be able to identify the brokering role of children in interaction with inter-ethnic encounters at local parks and playgrounds and that of inter-ethnic partners in interaction with encounters at bars and restaurants.

Because of a migrant-specific ceiling effect that I discuss below, I here focus on natives first. Model 2 of Table 7.2 shows two significant positive interactions, one between having children and the frequency of inter-ethnic encounters at local parks and playgrounds, the other between having an inter-ethnic partner and the frequency of inter-ethnic encounters at local bars and restaurants. The inclusion of these interaction terms means that the main effects of having children or an inter-ethnic partner cannot be interpreted as a general effect anymore. Instead they depend on the frequency of inter-ethnic encounters at public parks and playgrounds or bars and restaurants respectively. Figure 7.2 visualises this for the case of having children. For each of the two dependent variables, the absolute number and the relative share of inter-ethnic acquaintanceships, the figure shows two different visualisations. The left hand side displays the classical interaction plots: the linear relation between the frequency of encounters and the absolute number or relative share of inter-ethnic neighbourhood acquaintances for parents of young children (solid line) and others (dashed line). The right hand side shows, parallel to my earlier chapters, interaction plots as suggested by Brambor et al. (2006): the difference it makes to have young children, conditional on the frequency of
Figure 7.2: The Moderating Role of Children, Natives Only

**Absolute Number**

![Graph showing the absolute number of I–E acquaintanceships vs. impact of having children.]

- **X-axis:** I–E Encounters at Parks and Playgrounds
- **Y-axis:** Number of I–E acquaintanceships
- **Legend:**
  - Has Young Children
  - Has no Young Children
  - Estimate
  - 95% Confidence Interval

**Relative Share**

![Graph showing the relative share of I–E acquaintanceships vs. impact of having children.]

- **X-axis:** I–E Encounters at Parks and Playgrounds
- **Y-axis:** Percent of I–E acquaintanceships
- **Legend:**
  - Has Young Children
  - Has no Young Children
  - Estimate
  - 95% Confidence Interval
inter-ethnic encounters.

In regard of the absolute number of inter-ethnic neighbourhood acquaintances, we see that native parents indeed report to have significantly more migrant neighbourhood acquaintances given frequent inter-ethnic encounters at public parks and playgrounds. If their inter-ethnic encounters are not frequent, parents report lower numbers of migrants acquaintances, which is generally in line with earlier studies and might indicate the assumed self-selection of parents. With regard to the relative share of inter-ethnic acquaintances the findings are less obvious. While the pattern looks similar in general, the positive brokering role given frequent inter-ethnic encounters does not reach significance due to large confidence intervals. What does reach significance is the particularly low share of inter-ethnic contacts of parents who seldom have inter-ethnic encounters at local parks and playgrounds. In terms of this negative effect, we have to acknowledge the special nature of the relative share as dependent variable however. There is no reason to assume that children exclusively help to establish inter-ethnic contacts, which means that in such homogeneous contexts children probably help to establish co-ethnic acquaintances in addition to their parents’ lower absolute number of inter-ethnic contacts. This results in particularly low shares of inter-ethnic contacts of parents who rarely have inter-ethnic encounters.

This argument identifies a key difference between children and inter-ethnic partners as brokers of inter-ethnic contacts. When inter-ethnic encounters are infrequent, inter-ethnic partners should just not make a difference, because they particularly broker inter-ethnic contacts. This is exactly what we see in Figure 7.3, which visualises the significant interactions of having an inter-ethnic partner and the frequency of encountering migrants at local bars and restaurants for both dependent variables. For the relative share, the interaction term only reaches marginal levels of significance, but the plot largely supports my hypothesis that inter-ethnic partners act as brokers, particularly when frequent opportunities allow them to do so. Moreover, the plot shows the just-mentioned difference between children and inter-ethnic partners as brokers. Given infrequent inter-ethnic encounters, inter-ethnic partners just do not matter for the number or share of inter-ethnic neighbourhood acquaintances.

Overall, these results support my claim that brokering happens in social and geographical contexts that are the realm of proximity mechanisms. The contexts investigated here are only two examples, meaning that the brokering roles of inter-ethnic partners and children are probably not reduced to bars and restaurants and playgrounds and parks respectively. Baby sitters might get to know other neighbours when visiting a local ice-cream store with a child to give only one example. The general context effect of the local share of children demonstrates this. I expect that given the respective data, a similar context effect could probably be shown.
Figure 7.3: The Moderating Role of Inter-Ethnic Partners, Natives Only

**Absolute Number**

- **Number of I−E Acquaintanceships**
  - **Impact of Having an Inter−Ethnic Partner**
    - *Never*\(\rightarrow\) *Rarely*\(\rightarrow\) *Sometimes*\(\rightarrow\) *Often*\(\rightarrow\) *Very Often*
    - *Estimate*\(\rightarrow\) *95% Confidence Interval*

- **I−E Encounters at Bars and Restaurants**
  - *Has an I−E Partner*\(\rightarrow\) *Has no I−E Partner*

**Relative Share**

- **Percent of I−E Acquaintanceships**
  - *Never*\(\rightarrow\) *Rarely*\(\rightarrow\) *Sometimes*\(\rightarrow\) *Often*\(\rightarrow\) *Very Often*
  - *Estimate*\(\rightarrow\) *95% Confidence Interval*
for the local share of inter-ethnic partnerships. inter-ethnic partners most likely do not only act as brokers for each other, but for their (ego-)networks at large. That said, I also qualified that inter-ethnic partners and children probably do not act as brokers in any context. While I cannot formally test a non-relation, Model 3 shows that neither the interactions between having children and the frequency of inter-ethnic encounters at bars and restaurants nor between having an inter-ethnic partner and the frequency of inter-ethnic encounters at public parks and playgrounds are significant. The one unexpected exception is the significant interaction term between having children and encounters at bars and restaurants in the prediction of the absolute number of migrants neighbourhood acquaintances. While it is possible that children also help to make contacts in restaurants for example, the effect is weaker than the others and the overall pattern rather supports my expectations: brokering happens in social and geographical contexts that are the realm of proximity mechanisms, but not in any of these.

While I did focus on the brokering role of children and inter-ethnic partners rather than the direct effects opportunities arising from inter-ethnic encounters, one may still be concerned about the possibility of reverse causality. It is possible that parents get to know other parents at school or any other context and afterwards encounter them at the local playgrounds and parks. Similar people may meet acquaintances at local bars and restaurants that their inter-ethnic partner has introduced elsewhere. These scenarios are likely and I cannot isolate them from the ones I wish to study methodologically. However, these scenarios cannot explain why parents do not seem to encounter their acquaintances at bars and restaurants, or why people with inter-ethnic partners do not encounter their acquaintances at local parks and playgrounds or other public places. The particular pattern of significant and insignificant interactions is better accounted for by the above-elaborated theoretical argument.

The whole discussion on the brokering roles of children and inter-ethnic partners has focused on natives. For migrants, the results do not hold, even though no theoretical reason implies that children and inter-ethnic partners exclusively act as brokers for natives. The reason lies in a migrant-specific ceiling effect. Being in a clear minority position in Germany, those migrants who frequently come across natives at parks and playgrounds or bars and restaurants average 8.8 and 8.7 native neighbourhood acquaintances respectively. Natives, who report similar levels of inter-ethnic encounters report about half as many, namely 4.6 and 4.5 migrant neighbourhood acquaintances. Similarly, those migrants who have a native partner, average 8.9 native neighbourhood acquaintances. This means that for migrants who do come across natives frequently, having children or an inter-ethnic partner can hardly increase the number of contacts any further. Similarly, those migrants who do have an inter-ethnic partner are already so well socially integ-
rated, that frequent encounters at bars and restaurants do not make a difference. The same holds for the share of native neighbourhood acquaintances. This ceiling effect indeed suggests the broker function of children and inter-ethnic partners to work particularly, or even exclusively, for natives.

Conclusion

While ethnic fractionalisation seems to cause a decline in social cohesion, it also strengthens at least one of the moderators that attenuates this decline: inter-ethnic ties level the negative impact of ethnic fractionalisation on trust in neighbours, collective efficacy and related indicators of social cohesion. Complementing these finding of my earlier chapters, I have here tried to answer how natives and migrants get into personal contact, if their spatial proximity also causes them to “hunker down” and to oppose inter-ethnic mixing? In particular, I analysed the absolute number and relative share of inter-ethnic neighbourhood acquaintances of both natives and migrants, i.e. migrant acquaintances in the case of native respondents and native acquaintances in the case of migrant respondents. Research on (inter-ethnic) tie formation relies on proximity, assortative and relational mechanisms as explanations. My analysis shows that existing findings on strong inter-ethnic ties such as friendships or intermarriages, largely also hold for the case of weak inter-ethnic neighbourhood acquaintanceships: local out-group size, host-country language skills, cultural similarity and inter-ethnic partners are significant predictors. My results also suggest that relative shares of inter-ethnic contacts might be a better indicator for the purpose of group comparisons, because there seem to be ethno-cultural differences in the understanding of who counts as an acquaintance or in the habits of entertaining comparatively large or smaller (ego-)networks. The implications of using a relative as compared to an absolute indicator of inter-ethnic ties should be investigated in more detail by future research.

However, as Rivera et al. (2010) criticise, research on tie formation tends to study the isolated explanatory power of different mechanisms and neglects their interactions. Expanding earlier research on the brokering role of inter-ethnic partners, I have argued that brokering happens within certain contexts and that we should therefore study the interaction of relational and proximity mechanisms. In line with this expectation, I was able to show that people who have an inter-ethnic partner entertain more inter-ethnic neighbourhood acquaintances particularly when they have frequent inter-ethnic encounters at local bars and restaurants. More importantly, also children broker inter-ethnic ties for their parents, however, this only shows in interaction with the frequency of inter-ethnic encounters at local parks and playground. If such encounters are infrequent, parents report to have fewer inter-ethnic neighbourhood acquaintances, which reflects earlier find-
ings and might be accounted for by self-selection into homogeneous contexts. This demonstrates the importance of studying the interaction of mechanisms, because for parents an isolated, i.e. general or average impact of having children does not show. These findings on the ambivalent general effect of having children also imply that parents’ (inter-ethnic) contact behaviour is an interesting topic for future research.

My findings on the importance of bars and restaurants as well as playgrounds and parks are, however only exemplary demonstrations. Children and inter-ethnic partners probably help to establish contacts in many other contexts as well. This is an implication of my finding that people who live in regions with larger shares of children report to have more inter-ethnic acquaintances. This context effect expands earlier findings on the general integrating function of children [Logan and Spitze, 1994] to the particular realm of inter-ethnic neighbourhood contacts and shows children to matter for the establishment of inter-ethnic ties for wider populations than their parents and beyond the social contexts of local parks and playgrounds. I expect the share of inter-ethnic partnerships to exert a similar context effect, but cannot test this because the according context information is not publicly accessible. At the same time, I have also tried to show that brokerage does not happen in any context. My results suggest that inter-ethnic partners do not broker at local parks and playgrounds, nor do children in restaurants and bars. Overall, my findings imply that regions that attract young families, and provide family friendly spaces for free-time activities, will do better in facing the challenges of immigration. The segregation of family friendly suburbs that are dominated by natives on the one hand and diverse inner city districts on the other might be suboptimal with regard to the relation between ethnic fractionalisation and social cohesion.

Future research might be able to provide evidence for a context effect of the share of inter-ethnic partnerships and identify more contexts within which children and inter-ethnic partners act as brokers or characterise those where they do not. In addition, future research could investigate other potential brokers with likely candidates being middle-class migrant parents [Koopmans et al., 2011] as well as local shop keepers [Jacobs, 1961] or street vendors [Duneier, 2000]. Concerning the limitations of this chapter, I have to emphasise that these results hold particularly, or even exclusively, for natives only. Migrants who frequently encounter natives have so many native neighbourhood acquaintances that having an inter-ethnic partner or a young child does not make a (multiplicative) difference anymore. This ceiling effect, which seems to limit all multiplicative effects of children or inter-ethnic partners suggests that future research might follow Martinovic (2010) and look more closely into the different factors that explain migrants’ contacts to natives in comparison to those that explain natives’ contacts to migrants.
Another main limitation pertains to the possibility of reverse causality, which I admittedly cannot exclude, even though the findings provide suggestive evidence in favour of my causal interpretation. From a longitudinal perspective, future research could investigate whether parents and people with an inter-ethnic partner who move to a diverse neighbourhood do sooner get into contact with their inter-ethnic neighbours than childless co-ethnic couples. Such a finding would support the argument made here.