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

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Chapter 2

Ethnic Fractionalisation and Social Cohesion

What is it about ethnic fractionalisation that it is supposed to drive down levels of social cohesion and what is social cohesion that it should be affected by ethnic divisions in the population? This chapter serves as the theoretical background of the study by defining central concepts and laying out theoretical arguments, but it also aims to be more. This chapter will also give an extensive literature review regarding the relation between ethnic fractionalisation and social cohesion that encompasses possible explanations, theoretical implications and empirical findings that relate to the wider debate, but not necessarily directly to the empirical investigations undertaken in this work. In order not to confuse matters, the chapter culminates in a critical appraisal that distincts the approach taken in this work from the literature review at large.

The chapter is structured in five sections. The first section (“Social Cohesion”) defines social cohesion as feelings of trust that generate a social environment, in which people produce and share public goods and suggests civic engagement as indicator of its structural dimension and social trust as indicator of its cognitive dimension. The second section reviews the existing empirical evidence in support and against a negative association of ethnic fractionalisation and social cohesion in general, irrespective of what could account for such a relation. The following three sections then discuss what it is about ethnicity that its fractionalisation might cause social cohesion to decline, by focusing on one of ethnicity’s three dimensions, which I argue to consist of: first and foremost cognitive categories with which actors might identify as social identities, secondly the possibility of networks that are clustered along the lines of these ethnic categories, and finally of ethno-cultural habits and practices. The approach is to discuss how each of these three aspects is related to social cohesion in general and how these relations might be affected by ethnic divisions in the population. Each of the three sections

includes a discussion of the existing empirical findings in support or contradiction of the proposed explanations.

The second section (“Social Identity and Ethnicity”) defines ethnicity as a type of social identity that might be associated with dense networks among co-members and shared ethno-cultural habits and practices. Coming from an identity angle, the section also discusses what I call *cognitive biases*, which are highlighted by theories on inter-group relations as potential explanations. The third section (“Clustered Networks and Ethnicity”) deals with network relations, and discusses how ethnically clustered networks might lower levels of *social control*, which is a second potential explanation. The fourth section (“Culture and Ethnicity”) deals with the nature of cultural differences among ethnicities and discusses both *asymmetric distribution of preferences* and *coordination problems* as potential explanations. Rather than introducing these four approaches as additive or even rival explanations, I discuss how they relate to each other in reinforcing or attenuating ways. The possible interactions of different theories are important for the approach taken in this work and will be finally conceptualised in the last section (“Critical Appraisal and Own Approach”) after some other open questions, such as the importance of residential segregation or policy effects, have been discussed.

Social Cohesion

The literature on the possible challenges ethnically divided populations face is vast and includes a diverse set of outcomes such as the provision of public goods, civil wars, government quality, neighbourhoods’ collective efficacy, redistribution of resources, economic growth, students’ grades or levels of national identification. In this work, I will use the concept social cohesion as an umbrella term to focus on a certain subset of all these outcomes. Social cohesion is, however, a widely used term in both academic and policy oriented debates. Chan et al. (2006) give an extensive review on the concept that results in their own definition of socially cohesive societies that relies on the following three qualities, which members of a cohesive society enjoy:

- “(1) they can trust, help and cooperate with their fellow members of society;
 - (2) they share a common identity or a sense of belonging to their society;
 - (3) the subjective feelings in (1) and (2) are manifest in objective behaviour”
- (Chan et al., 2006, p. 289).

They continue to differentiate two dimensions of social cohesion. First, they differentiate between its subjective and objective component. This difference parallels the terminology of *cognitive* and *structural* social capital (e.g. Kriesi, 2007)

that I will follow and denotes on the one hand subjective evaluations of one's social environment and on the other concrete cooperative behaviours such as volunteering. Their second dimension is that between horizontal and vertical cohesion, where the former denotes relations between people and the latter their relation to state institutions.

I largely agree with Chan et al.'s (2006) definition, but deviate from it for the purpose of this study in two regards. First, Chan et al. (2006) focus on societies at large, whereas I am concerned with sub-national regions and neighbourhoods. For this reason, I neglect the vertical dimension of social cohesion, which involves trust in public figures, institutions and so on. Secondly, I do not include identity as part of social cohesion, because identity theories, especially social identity theory, explain why identification makes us trust in-group members and why it is a motivator to cooperate with others. From this perspective, identification is a cause of social cohesion and hence I refrain from including it in its definition. Given these considerations,

I understand the concept of *social cohesion* to encompass feelings of shared commonalities, trust, reciprocity and solidarity that generate the foundation or social environment in which people produce and share public goods and undertake collective endeavours.

Accordingly, I will focus on the provision of public goods as outcome of social cohesion, civic engagement as the structural dimension of social cohesion and measures of trust, reciprocity, attachment or other trust-related sentiments as indicators of the cognitive dimension of social cohesion. This means, I do not consider the vast literatures on ethnic diversity and civil wars, students' grades, economic growth or prejudice for example, with the exception of findings that have implications or yield interesting routes for further research in the area investigated here.¹ In the following, I give a brief overview of the three aspects of social cohesion mentioned above.

Collective Action and Public Goods Collective action is one of the most important outcomes of social cohesion, because it results in goods that serve a group at large, i.e. that are in the shared interest of the group rather than just of any single individual (the following considerations are mostly based on Hardin, 1982; Olson, 1965). The critical aspect of collective action is that narrowly rational individuals would not act toward a collective and against their individual interest, for the selfish interest is to enjoy the benefits of the public good while others

¹This also includes studies on prisoners dilemmas and trust games when two players are of different ethnicity (e.g. Haile et al., 2008), even though these games are logically equivalent to public goods games.

produce it (Olson, 1965). It is better to let the others pay taxes and still send one's child to school and drive on public streets. This results in the dilemma of collective action that no selfishly rational actor will engage and everyone is worse off. The reason for this lies in the nature of the goods that are being produced by collective action, namely public goods². These goods are characterised by the impossibility of exclusion, meaning that everyone can enjoy the good (as for example a clean environment). In so far as individuals are selfishly rational they will never participate in any collective action and since every selfishly rational individual follows this consideration, there will not be any public goods:

“The central relationship between the analysis of public goods and the problem of collective action, then, is that the costliness or de facto infeasibility of exclusion from consumption of a collectively provided good usually eliminates any direct incentive for individual consumers to pay for the good” (Hardin, 1982, p. 20).

The concept is not only of theoretical interest, but identifies on a very abstract level a problem that societies face on an everyday basis. The state relies on taxes in order to build infrastructure, guarantee security along with basic welfare for its citizens. For each individual it would be rational not to contribute to these public goods while walking the streets safely and receiving public health care. Democracies heavily depend on voting, which serves no individual interest, because the impact of a single vote is negligible and does not outweigh the costs of participating in the elections. People who vote merely serve the public interest in a democratic government.

How are collective action problems overcome? The social world is rich in examples of successful collective action and indeed even the simplest forms of human societies are characterised by collective action beyond genealogical kin, which

²Usually, scholars differentiate between private goods, club goods, common-pool resources and public goods and hold a rather rigid definition of public goods. The definition of public goods does not only involve the impossibility of exclusion, but also the jointness of supply, meaning that one person's consumption does not compromise the others' consumption. Ideas are often seen as an example, but for physical goods, jointness of supply is rather rare. In contrast, common-pool resources are not joint in supply and club goods are only non-exclusive to club members, but not the population at large. It is important to note, as Hardin (1982) points out, that Olson's (1965) analysis of collective action only depends on the impossibility of exclusion and even this impossibility does not need to be absolute for the dilemma to apply. The supply of club goods, which are only consumable by the members of a group or club (a neighbourhood, state, tennis club, or university for example) can still face a collective action problem; if it is impossible to exclude any of the inhabitants of a gated community from consumption then there is a collective action problem within this gated community to plant new flowerbeds for example. For this reason I abstain from the particularities of different types of goods, and use the term public goods to denote goods that serve a group interest and are potentially subject to the problem of collective action.

stands in sharp contrast to nearly all of the animal world (e.g. Bowles and Gintis, 2011, p. 2). Direct incentives, meaning an interest in public goods or the interests that would be met by the production of public goods, are not sufficient to explain collective action. For this reason, social scientists concentrate on external incentives (such as sanctions for defection) and extra-rational motivations (social identities for example) to explain why collective action dilemmas are overcome. Sections 2.2 to 2.4 deal with external incentives and extra-rational motives that might be affected by ethnic divisions. But before that, I will engage with the other dependent variables of this study and discuss the existing empirical evidence in support and against the claim that these outcomes are affected by ethnic diversity.

Civic Engagement Next to collective action as an outcome of social cohesion, I treat civic engagement and social trust (see below) as indicators of structural and cognitive social cohesion respectively.³ I treat civic engagement as the structural dimension of social cohesion and as distinct from collective action as its outcome for two reasons.

First, many instances of civic engagement are about collective action, yet more about the common production and maintenance of club goods, meaning public goods that are only accessible by members of a group, as when members of a soccer club demonstrate for more sports funding by the city. While civic engagement may also be a clear instance of collective action that serves general public ends,

³This idea of trust and civic engagement as indicators of a social climate of mutual trust and solidarity that enables collective action is also discussed under the label of *social capital*. The core idea of social capital is that being embedded in social relations can be of benefit (Coleman, 1990, p. 300). Within this broad agreement, there are considerably different views, most notably between sociologists and political scientists. Whereas sociologists tend to follow Bourdieu (1983) and see social capital as an individual's resource in gaining status objectives, political scientists and economists rather tend to follow Putnam et al. (1994) and see it as a group's resource that enables the overcoming of collective action dilemmas (for reviews see: Kriesi, 2007; Portes, 2000, 1998). For sociologists, social capital is primarily defined as an individual's network embeddedness or even as the material resources that can be accessed via one's networks (Lin, 2001). Political scientists and economists on the other hand mostly see social capital as consisting of civic engagement, trust and norms of reciprocity, even though they agree that network density is important to cause these outcomes and as such is an aspect of social capital. The latter expect circular relations between the different aspects of social capital (civic engagement, trust, norms and networks) so that social capital arises from their synergy.

Yet, empirical research has shown that the different aspects of social capital are not necessarily correlated (Freitag and Traunmüller, 2008; Franzen and Pointer, 2007) and theoretically it has been argued that such treatment leads to confusing causal statements (Portes, 2000). Furthermore, within this work, networks are one of the key explanatory variables that might help to explain the negative ethnic diversity effects on trust, civic engagement and collective action. For this reason, I will rather directly talk about civic engagement, trust as well as trust related sentiments and treat them as proximate indicators of social cohesion, with the latter seen as a social climate of mutual trust and solidarity.

it oftentimes has notably more exclusive ends and might even serve contentious means, as in the case of ethnic or nationalistic engagement.

Second, civic engagement also means participation in the civic sphere, which is that aspect of public life that is situated between family and state. There are several reasons why this second aspect of civic engagement also serves a society's social cohesion irrespective of any public goods production (the following considerations are mostly based on the following two reviews: Theiss-Morse and Hibbing, 2005; Fung, 2003). Civic engagement socialises persons to become democratic citizens, an idea that goes back to Tocqueville (2003). This means people learn democratic skills by organising their associational life and by articulating their interests in democratic ways. It also means civic engagement fosters democratic virtues, such as tolerance, willingness to participate in public life and political efficacy. Furthermore, good government needs to be informed about the interests of the population and hence relies on representation of these interests via associations, demonstrations or news reports. Beyond the representation of particular interests, some scholars follow Habermas' (1991) ideas that associations form a public sphere, in which societal problems of general interest, such as climate change, are first initialised as topics. Finally, a rich civic life builds the foundation for mobilisation for collective action.

One should not overlook, however, that not all civic engagement is democratic. There is a range of critique on the generally positive evaluation of civic engagement, because many associations are not organised in a democratic ways some strive for purposes such as an authoritarian racist government. Such objections question any clear cut relation between civic engagement and a cohesive society. However, it is difficult to imagine a vibrant socially cohesive society without any civic engagement and associational life at all. In addition, even exclusive club goods result from instances of collective action, because within the club members need to cooperate to produce them. For these reasons, I believe it is justified to treat civic engagement as the structural dimension of social cohesion, even if this includes instances of membership in ethnically exclusive organisations. The involved ambiguity should not be disregarded, however, and is considered several times throughout this work, both in this theoretical chapter (see section 2) and in the empirical analyses of Chapters 4 and 5.

Social Trust and Other Trust-Related Sentiments While public goods will not be produced and shared if humans are selfishly rational, many people feel that it is their duty to pay their taxes rather than to freeride on the contributions of others; they feel morally committed to support public goods provision. Yet moral commitment is far from universal, and the higher a population's average moral commitment the higher it's level of public goods provision. Putnam sees the norm

of generalised reciprocity as the “touchstone” (Putnam, 2000, p. 134). In principle, the *norm of reciprocity* demands to give back as one was given. A commitment to the norm of reciprocity is a sufficient condition to solve the collective action dilemma, because a committed person would not take from others without giving back. Furthermore, the norm of reciprocity produces mutual obligations that stabilise expectations about future interactions (Freitag and Traunmüller, 2008).

There is a large, rather confusing debate about whether the key characteristic of a cohesive society is trust, trustworthiness, or commitment to norms (e.g. Simpson and Eriksson, 2009; Ahn and Ostrom, 2008; Hardin, 2002). Empirically it is difficult to measure moral commitment or trustworthiness directly; the social desirability bias is obvious. For this reason it makes more sense to ask people to evaluate the moral commitment of persons in their social environment, may this be the neighbourhood, city or persons in general as measured by generalised trust. In other words, it is more sensible to ask people about their social trust in others, since:

“Trust is the expectation that arises within a community of regular, honest, and cooperative behavior, based on commonly shared norms, on the part of other members of that community” (Fukuyama, 1995, p. 26).

Following this view, trust is a function of a community’s culture, its commitment to values and norms, and thus an indirect measure of a population’s moral commitment. In a similar vein, Diekmann (2007) defines trust as the subjective likelihood with which an actor expects others to cooperate even though these others instantly could gain higher material benefits by acting opportunistically.⁴ In addition, if people do not trust others to be trustworthy, they will not cooperate either. For this reason, trust has been widely discussed in the social sciences (e.g. Cook et al., 2005; Hardin, 2002; Coleman, 1990; Fukuyama, 1995; Uslander, 2002) and is treated as an indicator of the cognitive dimension of social cohesion. Given this definition of social trust, I will treat measures such as community attachment, collective efficacy or the quality of neighbouring as *trust-related sentiments*, because they too measure whether a person believes his social environment to be trustworthy and committed to shared social norms.

A prominent conceptual distinction marks the difference between forms of *particular social trust* meaning faith in your own kind on the one side and *generalised social trust* that encompasses unknown strangers on the other (Nannestad, 2008).

⁴Note, that there are alternative conceptualisations of trust, which I do not follow within this study. Hardin for example defines trust as encapsulated interest meaning that “I trust you because I think it is in your interest to attend to my interests in the relevant matter” (Hardin, 2002, p. 3). With such a rational definition of trust, it does not make sense to think about trust apart from concrete choices a person makes and accordingly, it would not make sense to compare levels of trust across different groups.

The concrete relation between the two is under dispute (e.g. Newton and Zmerli, 2011), however, the importance of generalised trust is grounded in the fact that democracy is a large scale collective endeavour that necessitates trust in unknown strangers. People need to trust that fellow citizens at another end of the country also pay their taxes and go to vote in order for democracy to work. Trust in ones neighbours is in principle a particular form of trust, since it relates to a particular set of people who have something in common. Yet, trust in ones neighbours is not necessarily trust in ones own kind as the debate on ethnically fractionalisation shows. Neighbourhood based collective action may also involve unknown strangers who one needs to trust, even though the radius is much more narrow because these people happen to live in the same neighbourhood.

Empirical Evidence on the Relation Between Ethnic Fractionalisation and Social Cohesion

Numerous studies provide evidence according to which ethnically fractionalized populations tend to be characterised by lower levels of social cohesion. To evaluate this claim, I here review studies that relate ethnic fractionalisation as a contextual characteristic to measures of public goods provision, civic engagement and social trust. Some of the reviewed studies also report findings that do not fall under this definition. These are not considered in the text and analysis, but are listed in Table A.1 on page 239. Even under these more restrictive criteria, there are numerous studies, which are as diverse as the phenomenon they investigate. Table 2.1 gives an overview of confirmatory evidence for the idea that ethnic fractionalisation reduces social cohesion and Table 2.2 of confuting findings. In both tables, one row lists one empirical finding, which is defined as the test of an association between *one* measure of fractionalisation and *one* dependent variable. This means that some studies encompass several rows, because they test several different types of fractionalisation, or their effect on a number of different dependent variables. It also means that one study can be listed in both the tables on confirmatory as well as on confuting evidence. Focusing on the table of confirmatory evidence first, the table summarises five types of information:

- First, the **study's** name may be bold, written in italics or written in common letters. Bold studies are those yielding mostly confirmatory evidence. This is defined by the majority of tested relations to be confirmatory. Note that relations that are significant only under certain circumstances (an interaction effect) only count half. Studies with only one finding are always bold. Studies that are written in italics are those, where there is an equal number of confirmatory and confuting findings. Studies that are neither bold

nor italicised provide evidence that mostly speaks against a relation between ethnic fractionalisation and social cohesion, i.e. that have more rows in the table on confuting findings.

- Second, the table shows the **region** the study encompasses, which can range from a single city like Amsterdam (e.g. Vermeulen et al., 2011), to the comparison of 215 countries worldwide (e.g. Alesina et al., 2003), or even special cases such as fisheries and irrigation systems (Ruttan, 2006).
- The third piece of information is the **level of analysis**, which can range from small units like census tracts (e.g. Putnam, 2007) to whole countries (e.g. Baldwin and Huber, 2010). Since many contexts are country-specific, such as “Raumordnungsregionen” in Germany (Gundelach and Traunmüller, 2010) or chiefdoms in Sierra Leone (Glennerster et al., 2010), the specific contexts were classified in three sizes. The largest units are *countries*. These are followed by *cities and regions*, which I define as being larger than the sub-city or sub-municipalities, but also sub-national states (e.g. Alexander, 2007), as well as metropolitan areas (e.g. Alesina et al., 1999). The smallest context units are *neighbourhoods*⁵ and include zip-codes (e.g. Lancee and Dronkers, 2011) or census tracts (e.g. Stolle et al., 2008) for example. Some context units did not fit this classification and were mentioned explicitly. The table has been sorted from large (country) to small (neighbourhood).
- The fourth piece of information encompasses the **kind of fractionalisation** investigated. This does not mean different types of ethnic composition, but the type of ethnic category. According to the definition of ethnicity given below, I differentiate between five kinds of ethnic categories. *Ethnic (native)* means ethnic categories that apply to populations that are seen as part of a country’s native population, such as Kikuyu and Luo in Kenya (Miguel, 2004). *Ethnic (migrant)* denotes categories that relate to migrant populations, such as Turkish migrants in Germany (Gundelach and Traunmüller, 2010). *Racial* fractionalisation encompasses categories such as Black or Hispanic, as used in US American studies (e.g. Alesina et al., 1999). Finally there is *religious* and *linguistic* fractionalisation. Some studies use indicators that combine religious or linguistic and ethnic groups. The often used “Ethno-linguistic Fractionalisation Index (ELF)” (Hirschman, 1964) is coded as ethnic (native), while special indices, like Desmet et al.’s (2009) linguistically weighted ethnic fractionalisation index, are mentioned explicitly.

⁵Villages were treated as neighbourhoods for their small size and the likelihood that inhabitants interact with one another.

- The final type of information contains the range of different **dependent variables** for which a relation to ethnic fractionalisation could be confirmed. Some of these dependent variables are highlighted in italics, which denotes a significant relation to fractionalisation only under certain circumstances⁶, such as Kesler and Bloemraad (2010), who show that the relation holds only in countries with strong income inequality.

⁶Methodologically this means separate models for different populations or interaction terms were estimated

Table 2.1: Evidence in Support of an Ethnic Fractionalisation Effect

Study	Region	Fractionalisation	Dependent Variable
<i>Cross-National Studies</i>			
Alesina et al. (2003)	215 Countries	Ethnic (native)	<ul style="list-style-type: none"> • Corruption • Illiteracy • Infant Mortality
		Linguistic	<ul style="list-style-type: none"> • Corruption • Illiteracy • Infant Mortality
		Religious	<ul style="list-style-type: none"> • Infant Mortality
Alesina et al. (2001)	56 Countries	Racial	<ul style="list-style-type: none"> • %Social Transfers
Anderson and Paskeviciute (2006)	44 Countries	Ethnic (native)	<ul style="list-style-type: none"> • Generalised Trust
Anderson and Paskeviciute (2006)		Linguistic	<ul style="list-style-type: none"> • <i>Political Interest</i> • Generalised Trust
Baldwin and Huber (2010)	46 Countries	Economic Weighted Ethnic(native) Index	<ul style="list-style-type: none"> • Public Goods Provision
Delhey and Newton (2005)	60 Countries	Ethnic(native & migrant)	<ul style="list-style-type: none"> • Generalised Trust
Desmet et al. (2009)	105 Countries	Ethnic(native)	<ul style="list-style-type: none"> • Redistribution
		Linguistic Weighted Ethnic(native) Index	<ul style="list-style-type: none"> • Redistribution
Gesthuizen et al. (2008)	28 European Countries	Ethnic(migrant)	<ul style="list-style-type: none"> • Generalised Trust
Kesler and Bloemraad (2010)	19 Countries	Ethnic(migrant)	<ul style="list-style-type: none"> • <i>A. Membership</i>
Knack and Keefer (1997)	29 Countries	Ethnic(native)	<ul style="list-style-type: none"> • Civic Norms • Generalised Trust
Kuijs (2000)	79 Countries	Ethnic(native)	<ul style="list-style-type: none"> • Public Health Spending • Infant Mortality • Life Expectancy • Illiteracy
Lassen (2007)	50 Countries	Ethnic(native)	<ul style="list-style-type: none"> • Corruption • Size of Informal Economy
Stegmueller et al. (2012)	16 West European Countries	Religious	<ul style="list-style-type: none"> • Support for Redistribution
Zak and Knack (2001)	41 Countries	Ethnic(native)	<ul style="list-style-type: none"> • Trust
<i>City and Regional Studies</i>			
Alesina and La Ferrara (2000)	USA	Ethnic(native)	<ul style="list-style-type: none"> • A. Membership
		Racial	<ul style="list-style-type: none"> • A. Membership
Alesina et al. (1999)	USA	Racial	<ul style="list-style-type: none"> • %Taxes for Education • %Taxes for Police • %Taxes for Roads • %Taxes for Cleaning
Alesina and La Ferrara (2002)	USA	Racial	<ul style="list-style-type: none"> • Generalised Trust
Andrews (2009)	England	Ethnic(native)	<ul style="list-style-type: none"> • Community Attachment
Banerjee et al. (2005)	India	Religious	<ul style="list-style-type: none"> • School Density • Transportation Infrastructure • Water Infrastructure • Power Infrastructure
Coffe and Geys (2006)	Flanders	Ethnic(migrant)	<ul style="list-style-type: none"> • Social Capital Index
Costa and Kahn (2003a)	USA	Ethnic(migrant)	<ul style="list-style-type: none"> • A. Membership (GSS-Data) • Volunteering (CPS-Data)

Continued on next page

Confirmatory findings continued from previous page

Study	Region	Fractionalisation	Dependent Variable
		Racial	<ul style="list-style-type: none"> • <i>Generalised Trust (GSS-Data)</i> • <i>Volunteering (CPS-Data)</i> • A. Membership (NES-Data) • Volunteering (DBD-Data)
Costa and Kahn (2003b)	USA	Ethnic(migrant)	<ul style="list-style-type: none"> • A. Membership • Volunteering
Dincer (2011)	USA	Racial	<ul style="list-style-type: none"> • Generalised Trust
Eger (2010)	Sweden	Ethnic(migrant)	<ul style="list-style-type: none"> • Support for Social Welfare Expenditure
Ferrara and Mele (2006)	USA	Racial	<ul style="list-style-type: none"> • School Expenditure per Pupil • Revenue per Pupil • Private Schooling
Fieldhouse and Cutts (2010)	UK	Ethnic(migrant)	<ul style="list-style-type: none"> • Prosocial Norms • <i>Participation</i>
	USA	Racial	<ul style="list-style-type: none"> • Prosocial Norms • Participation
Gundelach and Traummüller (2010)	Germany	Ethnic(migrant)	<ul style="list-style-type: none"> • Generalised Trust • <i>Reciprocity</i>
		Religious	<ul style="list-style-type: none"> • <i>Reciprocity</i> • <i>Generalised Trust</i>
Gustavsson and Jordahl (2008)	Sweden	Ethnic(migrant)	<ul style="list-style-type: none"> • Generalised Trust
Hakansson and Sjöholm (2007)	Bosnia-Herzegovina	Ethnic(native)	<ul style="list-style-type: none"> • Generalised Trust
Hopkins (2011)	USA	Racial	<ul style="list-style-type: none"> • %Taxes for Sanitation
Hoxby (2000)	USA	Racial	<ul style="list-style-type: none"> • School Expenditure per Pupil
Hungerman (2008)	USA	Racial	<ul style="list-style-type: none"> • <i>Charitable Church Activity (DDS-Data)</i> • <i>Charitable Church Activity (NCS-Data)</i>
Kaniovski and Mueller (2006)	Norway	Ethnic(migrant)	<ul style="list-style-type: none"> • Voter Turnout
Laurence (2011)	Great Britain	Ethnic(migrant)	<ul style="list-style-type: none"> • Social Cohesion
Laurence and Heath (2008)	Great Britain	Ethnic(migrant)	<ul style="list-style-type: none"> • <i>Social Cohesion</i>
Lind (2007)	USA	Racial	<ul style="list-style-type: none"> • Redistribution
Luttmer (2001)	USA	Racial	<ul style="list-style-type: none"> • Support for Redistribution
Matsubayashi (2010)	USA	Racial	<ul style="list-style-type: none"> • Voting Turnout • Interest in Politics
Miguel (2004)	Kenya & Tanzania	Ethnic(native)	<ul style="list-style-type: none"> • School Expenditure per Pupil • School Desks per Pupil • A. Membership
Miguel and Gugerty (2005)	Kenya	Ethnic(native)	<ul style="list-style-type: none"> • School Funding per Pupil • Donations per Pupil • Desks per Pupil • Classrooms per Pupil • Number of Other Schools in Area • School Committee Sanctioning • Parent Cooperation • Teacher Motivation • Well Maintenance
<i>Okten and Osili (2004)</i>	Indonesia	Ethnic(native)	<ul style="list-style-type: none"> • Money for Public Good
Pennant (2005)	England	Racial	<ul style="list-style-type: none"> • Generalised Trust
Rubenson (2005)	USA	Racial	<ul style="list-style-type: none"> • <i>Voter Turnout</i>
Rupasingha et al. (2006)	USA	Racial	<ul style="list-style-type: none"> • Associational Density • Non-Rent Seeking Associations • Social Capital Index
Traummüller (2009)	Germany	Religious	<ul style="list-style-type: none"> • <i>Trust</i>
Twigg et al. (2010)	England	Racial	<ul style="list-style-type: none"> • Social Cohesion

Continued on next page

Confirmatory findings continued from previous page

Study	Region	Fractionalisation	Dependent Variable
Uslaner (2011)	UK	Racial	• Generalised Trust
	USA	Racial	• Generalised Trust
Vigdor (2004)	USA	Racial	• Response Rates
Zerfu et al. (2009)	8 African Countries	Ethnic(native)	• <i>Generalised Trust</i>
<i>Neighbourhood Studies</i>			
Algan et al. (2011)	France	Ethnic(migrant)	• Overall Nbh. Conditions • Neglect of Public Areas • Poor Quality of Housing
		Religious	• Overall Nbh. Conditions • Neglect of Public Areas
Baland et al. (2007)	Nepal	Ethnic(native)	• Firewood Collection
Bardhan (2000)	Tamil Nadu	Ethnic(native)	• Conflict over Water
Charles and Kline (2006)	USA	Racial	• Carpooling
Dinesen and Sønderskov (2011)	Denmark	Ethnic(migrant)	• Generalised Trust
Falk and Zehnder (2007)	Zurich	Ethnic(migrant)	• Trust Game Endowment
Franzini (2008)	Texas	Linguistic	• Generalised Trust
Gijsberts et al. (2011)	Netherlands	Ethnic(migrant)	• Neighbourhood Contacts
Hopkins (2009)	Massachusetts	Racial	• Hold Debt Exclusion • Pass Debt Exclusion
Hou and Wu (2009)	Canada	Ethnic(migrant)	• Trust in Neighbours
Khwaja (2009)	North Pakistan	Ethnic(native)	• Community Project Maintenance
Lancee and Dronkers (2010)	Netherlands	Ethnic(migrant)	• <i>Trust in Neighbours</i> • Quality of Contact With Neighbours • Quality of Contact with Neighbours
		Religious	• <i>Quality of Contact with Neighbours</i> • <i>Trust in Neighbours</i>
Leigh (2006)	Australia	Ethnic(migrant)	• Local Trust
		Linguistic	• Generalised Trust • Local Trust
Letki (2008)	Great Britain	Racial	• Social Cohesion
Lolle and Torpe (2011)	7 European Cities	Ethnic(migrant)	• Generalised Trust
Oliver (2010)	USA	Racial	• Volunteering • Actual Participation • Trust in Neighbours
Petermann et al. (2011)	Germany	Ethnic(migrant)	• Generalised Trust
Putnam (2007)	USA	Racial	• Trust in Neighbours • Political Efficacy • Registration to Vote • Collective Efficacy • Volunteering • Number of Friends
Rice and Steele (2001)	Iowa	Ethnic(native)	• Community Attachment • Community Suspicion • Community Involvement
Schieman (2009)	Colombia and Maryland (USA)	Racial	• Perceived Neighbourhood Problems
Soroka et al. (2007a)	Canada	Ethnic(migrant)	• Would Neighbour Return a Wallet?
Soroka et al. (2007b)	Canada	Racial	• Generalised Trust
Stoll and Wong (2007)	Los Angeles	Racial	• A. Membership
Stolle et al. (2008)	USA & Canada	Racial	• Trust

Continued on next page

Confirmatory findings continued from previous page

Study	Region	Fractionalisation	Dependent Variable
<i>Sturgis et al. (2011a)</i>	UK	Racial	• Trust in Neighbours
Swaroop and Morenoff (2006)	Chicago	Ethnic(migrant)	• Instrumental Organisations
Tolsma et al. (2009)	Netherlands	Ethnic(migrant)	• Volunteering • <i>Neighbourhood Contacts</i>
Trawick and Howsen (2006)	Kentucky	Racial	• Crime
Tsai (2007)	China	Ethnic(native)	• Paved Roads
Vermeulen et al. (2011)	Netherlands	Ethnic(migrant)	• Density of Leisure Associations
<i>Other Levels</i>			
Alexander and Christia (2009)	Bosnia-Herzegovina	Ethnic(native)	• Sanctioning • Collective Action
Andrews et al. (2009)	England	Ethnic(migrant)	• Public Service Performance
Bandiera et al. (2005)	UK	Ethnic(migrant)	• Worker's Cooperation to Lower Productivity
Björkman and Svensson (2010)	Uganda	Ethnic(native)	• Treatment Effect to Increase Public Goods Provision
Campbell (2007)	USA	Racial	• Informed Voting
Espinoza and Garza (1985)	USA	Racial	• <i>Collective Action Game</i>
Fong and Luttmer (2009)	USA	Racial	• <i>Money for Charity</i> • Hypothetical Money for Charity • Support for Private Charity • Support for Public Redistribution
Karlan (2007)	Peru	Ethnic(native)	• Credit Repayment Default • Drop-out from Group Banking • Loan Monitoring
Ruttan (2006)	94 Fisheries & Irrigation Cases	Ethnic(native)	• Quality of Resources • <i>Abundance of Resources</i> • <i>Formal Sanctions</i> • Trust
van Houtte and Stevens (2009)	Flanders	Ethnic(migrant)	• Participation
Koopmans and Rebers (2009)	Netherlands	Religious	• Collective Action Game

Despite the numerous findings, which seem to show a convincing amount of empirical evidence, there is also a lot of confuting evidence. The confuting findings are summarised in Table 2.2. The table follows a similar logic as the former, but two pieces of information differ.

- First, italicised **dependent variables** do not denote an interaction as in Table 2.1. In this table they denote a significant relation that does not remain significant after the introduction of additional controls. Of course such differentiation was only possible where studies show stepwise regression models. Such an effect can have two reasons. The first one is a *spurious correlation* (see also the paragraph on common critique below) as in the case of Alexander (2007), who finds a negative bivariate relation between the percent of black population and his social capital index, which seems to be due to the regional socio-economic composition. In principle, such a finding could also indicate a *mediation*. On example pertains controls for GDP in cross-national studies. There is a large literature that suggests ethnic fractionalisation to result in low levels of economic performance, which again is associated with low levels of social cohesion. Controlling for GDP might result in an underestimation of the ethnic fractionalisation effect, because the latter might affect social cohesion via its impact on the economy. Unfortunately, the difference between mediation and spurious correlation can only be judged by theoretical plausibility when the studies rely on observational data.
- Second, this table also shows certain types of **fractionalisation** in italics. This indicates that the same study has found another type of fractionalisation to indeed confirm the ethnic fractionalisation effect. I think this is an important information, because some studies investigate the impact of immigration-based, religious and linguistic fractionalisation at the same time (e.g. Lancee and Dronkers, 2011) and in such a case it is difficult for all diversities to pick up a significant effect. Therefore, it is questionable whether one should treat this as a confuting result of the study.

Table 2.2: Evidence Against an Ethnic Fractionalisation Effect

Study	Region	Fractionalisation	Dependent Variable
<i>Cross-National Studies</i>			
Alesina et al. (2003)	215 Countries	<i>Religious</i>	• Corruption
Alesina et al. (2003)		<i>Religious</i>	• Illiteracy
		Ethnic(native)	• Infrastructure Quality
			• Tax Compliance
		Linguistic	• Infrastructure Quality
			• Tax Compliance
		Religious	• Infrastructure Quality
			• Tax Compliance
Alesina et al. (2001)	56 Countries	<i>Ethnic(native)</i>	• %Social Transfers of GDP
Anderson and Paskeviciute (2006)	44 Countries	Ethnic(native)	• A. Membership
			• Political Discussion
			• Political Interest
		Linguistic	• A. Membership
			• Political Discussion
Baldwin and Huber (2010)	46 Countries	<i>1 weighted Ethnic(native) Index</i>	• Public Goods Provision
		<i>2 weighted Ethnic(native) Index</i>	• Public Goods Provision
		<i>Ethnic(native)</i>	• Public Goods Provision
Bjornskov (2007)	76 Countries	Ethnic(native)	• Generalised Trust
Bjornskov (2008)	77 Countries	Ethnic(native)	• Generalised Trust
Charron (2009)	79 Countries	Ethnic(native)	• <i>Quality of Government</i>
Gesthuizen et al. (2008)	28 European Countries	Ethnic(migrant)	• Donations
			• Informal Help
			• Meeting Colleagues
			• Meeting Friends
			• Meeting Neighbours
			• A. Membership
			• Participation
Hooghe et al. (2007)	20 European Countries	Ethnic(migrant)	• Generalised Trust
Hooghe et al. (2009)	21 European Countries	Ethnic(migrant)	• Generalised Trust
		Inflow of Foreign Workers	• Generalised Trust
Kesler and Bloemraad (2010)	19 Countries	Ethnic(migrant)	• <i>Political Action</i>
			• <i>Generalised Trust</i>
Kuijs (2000)	79 Countries	Ethnic(native)	• Immunisation
			• Public Education Spending
			• Schooling
Leigh (2006)	59 Countries	Ethnic(native)	• Generalised Trust
Lolle and Torpe (2011)	24 European Countries	Ethnic(migrant)	• Generalised Trust
Paxton (2007)	31 Countries	Ethnic(native)	• Generalised Trust
Savelkoul et al. (2011)	21 European Countries	Ethnic(migrant)	• Informal Help
			• Frequency of Contact
<i>City and Regional Studies</i>			
Alesina et al. (1999)	USA	Racial	• %Taxes for Healthcare
Alesina and La Ferrara (2002)	USA	<i>Ethnic(native)</i>	• Generalised Trust

Continued on next page

Confuting findings continued from previous page

Study	Region	Fractionalisation	Dependent Variable
Alexander (2007)	USA	Racial	• <i>Social Capital Index</i>
Banerjee et al. (2005)	India	Religious	• Communication Infrastructure • Health Infrastructure
Costa and Kahn (2003a)	USA	<i>Ethnic(migrant)</i>	• Generalised Trust (GSS-Data) • A. Membership (NES-Data) • Volunteering (DDB-Data)
		<i>Racial</i>	• A. Membership (GSS-Data)
Costa and Kahn (2003b)	USA	<i>Racial</i>	• <i>Volunteering</i> • A. Membership
Fieldhouse and Cutts (2008a)	Great Britain	Ethnic(migrant)	• Voter Turnout • Voting Registration
Fieldhouse and Cutts (2008b)	Great Britain	Ethnic(migrant)	• Voter Registration
Glennerster et al. (2010)	Sierra Leone	Ethnic(native)	• Collective Action • Disputes • A. Membership • Road Maintenance • School Building Quality • School Supplies • Teaching Quality • Generalised Trust
Hopkins (2011)	USA	Racial	• %Taxes for Roads • %Taxes for Libraries • %Taxes for Transit • %Taxes for Parks • %Taxes for Fire • %Taxes for Health • %Taxes for Housing • %Taxes for Crime
Hoxby (2000)	USA	<i>Ethnic(native)</i>	• School Expenditure per Pupil • Private Schooling
		Racial	• Private Schooling
Kazemipur (2006)	Canada	Ethnic(migrant)	• Generalised Trust
Lall et al. (2004)	Bangalore & India	Ethnic(native)	• Participation
Miguel (2004)	Kenya & Tanzania	Ethnic(native)	• Latrines per Pupil • Classrooms per Pupil • Wells with Normal Water-flow
		Ethnic(native)	• Latrines per Pupil • Textbooks per Pupil • School Committee Activity • Parent Meetings
Miguel and Gugerty (2005)	Kenya	Ethnic(native)	• Time Spend For Public Good
<i>Okten and Osili (2004)</i>	Indonesia	Ethnic(native)	• Time Spend For Public Good
Pennant (2005)	England	Racial	• Volunteering • Civic Participation
Poterba (1997)	USA	Racial	• <i>Non-School Direct Spending Per Pupil</i> • <i>School Spending Per Pupil</i>
Rupasingha et al. (2006)	USA	Racial	• Rent Seeking Associations
Savelkoul et al. (2011)	Europe	Ethnic(migrant)	• Informal Help • Frequency of Contact
<i>Neighbourhood Studies</i>			
Algan et al. (2011)	France	Ethnic(migrant)	• <i>Index for Civil Conflicts</i>
		Religious	• <i>Poor Quality of Housing</i> • <i>Index for Civil Conflicts</i>
Aizlewood and Pendakur (2007)	Canada	Ethnic(migrant)	• <i>Formal Participation</i> • <i>Seeing Friends</i> • Neighbourhood Contacts
<i>Bardhan (2000)</i>	Tamil Nadu	Ethnic(native)	• Rules Frequently Violated

Continued on next page

Confuting findings continued from previous page

Study	Region	Fractionalisation	Dependent Variable
Franzini (2008)	Texas	Racial	• Generalised Trust
Gijsberts et al. (2011)	Netherlands	Ethnic(migrant)	• <i>Generalised Trust</i> • <i>Volunteering</i> • Informal Help
Hopkins (2009)	Massachusetts	Racial	• Hold Override • Pass Override
Lancee and Dronkers (2010)	Netherlands	Ethnic(migrant)	• <i>Inter-ethnic Trust</i>
Lancee and Dronkers (2011)	Netherlands	<i>Linguistic</i>	• Quality of Neighbourhood Contacts • Trust In Neighbours
		Ethnic(migrant)	• <i>Trust In Neighbours</i>
Leigh (2006)	Australia	<i>Ethnic(migrant)</i>	• Generalised Trust
Letki (2008)	Great Britain	Racial	• Informal Help • Participation • Sociability
Marschall and Stolle (2004)	Detroit	Racial	• Generalised Trust
Phan et al. (2009)	USA	Racial	• Help given to Neighbours, Friends and Co-workers
Phan (2008)	Canada	Racial	• Generalised Trust
Putnam (2007)	USA	Racial	• Interest in Politics • Protest Participation
Somanathan et al. (2007)	Himalaya	Ethnic(native)	• Watchman Employed • %Area Covered by Tree Crowns in Broad-Leafed Forest • %Area Covered by Tree Crowns in Pine-Tree Forest • Meetings per Year
Soroka et al. (2007a)	Canada	Ethnic(migrant)	• Would a Stranger Return a Wallet?
Soroka et al. (2007b)	Canada	Racial	• Support for Health-care • Support for Welfare • Support for Pensions
Sturgis et al. (2011b)	London	Racial	• Social Cohesion
Sturgis et al. (2011a)	UK	Racial	• <i>Generalised Trust</i>
Swaroop and Morenoff (2006)	Chicago	Ethnic(migrant)	• <i>Problem Solving</i> • Expressive Organisations
Tolsma et al. (2009)	Netherlands	Ethnic(migrant)	• Generalised Trust
Tsai (2007)	China	Ethnic(native)	• Per Capita Investment • Paved Paths • % Classrooms Usable in Rain • Newness of School • Running Water
Varughese and Ostrom (2001)	Nepal	Ethnic(native)	• Collective Activity
Vermeulen et al. (2011)	Netherlands	Ethnic(migrant)	• Density of Foundations
<i>Other Levels</i>			
Dinesen (2011)	Denmark	Ethnic(migrant)	• Generalised Trust
Karlan (2007)	Peru	Ethnic(native)	• Savings Associated with Group Banking
Ruttan (2006)	94 Fisheries & Irrigation Cases	Ethnic(native)	• Informal Sanctions • Rule Obedience • Participation • Access to Resources

Comparison of Evidence in Support of, and Against an Ethnic Fractionalisation Effect Comparing both tables visually is difficult, for I have researched 116 Studies that encompass 311 empirical findings. Both tables do a good job in giving an overview of the collected evidence, but more is necessary to come to a conclusion. For this reason Table 2.3, summarises and analyses the empirical findings according to certain criteria that are discussed as relevant in the literature. The table relies on two crucial assumptions on the basis of which we can derive information from it.

First, it assumes each empirical finding to be equally reliable, valid and relevant. In principle it is possible, however, that confirmatory findings are on average less reliable than the confuting ones. Concerning the point of relevance, this does not only mean that we might consider latrines per pupil as a less important outcome than the quality of government. It also concerns the italicised conditions of the tables. In particular, this applies to findings that rely on an interaction term (meaning that they are only significant under certain circumstances), and those where a couple of fractionalisation measures were investigated at the same time. Only under this assumption it makes sense to summarise the number of confirmatory and confuting findings in relation to certain criteria such as the type of ethnic fractionalisation. For the overall evaluation, I show different operationalisations that exclude conditional confirmations, multiple fractionalisation measures and finally reduce each study to one overall result.

Second, the table assumes each empirical finding to be a randomly sampled observation from a universe of empirical findings on the relation between ethnic fractionalisation and social cohesion. This assumption is the foundation of calculating the binomial tests of significance, which tell us whether there are significantly more or less confirmatory findings as compared to confuting ones. This assumption allows secondly to estimate linear probability models (LPM)⁷ so that I can show the probability of providing a confirmatory finding under a certain condition (for example conducting the study in a developing country) while holding all other conditions, constant. The results of the linear probability regression model upon which these conditional probabilities rely are shown in Table A.2 on page 240.⁸

Both assumptions are highly questionable and contemporary methods of meta-

⁷For a short discussion of linear probability models see Mood (2010). Note, that since all independent variables in this analysis are dummies, the model is saturated and “Saturated regression models fit the CEF [Conditional Expectation Function, author’s note] perfectly because the CEF is a linear function of the dummy regressors used to saturate” (Angrist and Pischke, 2009, p. 49), meaning that there are no pitfalls in estimating a linear probability model when all regressors are dummies.

⁸Note that because the dimensions of region and level of analysis overlap in case of cross-national studies, I estimated separate models for these dimensions. The full model does not suffer from this, because some cross-national studies focus on European countries solely, so that the categories are not perfectly overlapping.

analysis are basically about substituting those two assumptions for a much larger set of more realistic assumptions, by incorporating for example standard errors, effect sizes and sample sizes of the studies reviewed (e.g. Hunter and Schmidt, 2004). However, in this case it is most unclear what the appropriate set of more realistic assumptions would be, given that some studies compare aggregate data on firewood collection from 18 villages in Nepal (e.g. Varughese and Ostrom, 2001), while others compare levels of generalised trust of thousands of respondents in 28 countries with logistic multi-level models (e.g. Gesthuizen et al., 2008). A proper meta-analysis opens up a vast contingent space of possibly more realistic assumptions on how to incorporate information on measurement reliability and sampling error of the studies reviewed here. For this reason, I will rely on the two questionable, but therefore rather accessible assumptions, with the restriction that I will not try to find significant differences according to some criteria, but tendencies of a pattern. Given this background, the general insight that the difference between a significant and a non-significant finding is oftentimes itself not significant (Gelman and Stern, 2006), seems to be especially relevant here. An example discussed below is that findings that rely on US data are significantly more likely to confirm a negative relation between ethnic fractionalisation and social cohesion, which is not true for findings on European data. Yet, this does not mean that the difference between the two is itself significant.

Which patterns do we find and how do they relate to claims made in the literature? *Overall*, we see that about 55 percent of the empirical results are confirmatory and neither the binomial test of significance nor the standard error of the linear probability null-model, suggest that there is a tendency for this to be a pattern. Excluding the conditional support that is disregarding findings that are only significant under certain conditions, this conclusion becomes even stronger with a tied result of about 50 percent support and 50 percent confutations. On the other hand, when we only regard one index in those cases where several were investigated in one model and here chose the confirmatory finding if existent, then we see a tendency for more confirmatory results with about 58 percent. Taking both these constraints into account brings us more or less back to the initial result, which hence seems the most reliable. Finally, we can also look at the level of the studies. Here we can compare the number of confirmatory as well as confuting bold studies of the tables, since the italicised provide an overall inconclusive picture. Overall, there are 105 such studies and from the angle of the study level, the bottom line of Table 2.3 shows that is a tendency for confirmatory evidence with 67 percent of the studies reporting a majority of confirmatory findings. In light of the general possibility of a publication bias against null results, but also the fact that a single study with a couple of dependent variables one should be very careful with this overall statement.

Table 2.3: Summary and Analysis of the Evidence

	Confutations		Confirmations		Binomial P-value	LPM	
	n	%	n	%		Cond. Prob.	SE
Dependent Variable	.	.	.	.	.	.	.
Collective Action	37	44.58	46	55.42	0.38	52.54	5.76
Public Good	31	49.21	32	50.79	1.00	54.16	6.93
Trust	33	38.37	53	61.63	0.04	62.11	5.39
Civic Engagement	41	51.90	38	48.10	0.82	47.92	5.75
Fractionalization	.	.	.	.	.	.	.
Race	35	37.23	59	62.77	0.02	55.61	7.29
Religion	8	36.36	14	63.64	0.29	64.99	10.66
Language	6	40.00	9	60.00	0.61	67.83	14.35
Ethnic (native)	54	50.94	52	49.06	0.92	53.20	6.63
Ethnic (migrant)	39	52.70	35	47.30	0.73	48.46	7.20
Level of Analysis	.	.	.	.	.	.	.
Country	40	59.70	27	40.30	0.14	41.44	6.39
Region	50	40.32	74	59.68	0.04	59.77	4.47
Neighbourhood	46	48.94	48	51.06	0.92	49.10	5.36
Other	6	23.08	20	76.92	0.01	80.66	8.94
Study Region	.	.	.	.	.	.	.
North America	41	38.68	65	61.32	0.03	61.97	6.93
Europe	38	45.24	46	54.76	0.45	58.49	6.43
Dev. Countries	36	52.17	33	47.83	0.81	45.43	8.17
Total (Findings Level)	142	45.66	169	54.34	0.14	54.34	2.83
No Cond. Support	142	49.13	147	50.87	0.81	50.87	2.95
Only One Index	123	42.12	169	57.88	0.01	57.88	2.89
Both	123	45.56	147	54.44	0.16	54.44	3.04
Total (Study Level)	35	33.02	71	66.98	0.00	66.98	4.59

This table treats each finding as a (randomly sampled) observation.

How about tendencies according to certain study criteria then? One of the most central claims in the debate deals with *regional specificities*, most importantly that “the vast majority of extant empirical investigations are based on data collected in North America” (Sturgis et al., 2011a, p. 58). This is a recurrent claim according to which the relation between fractionalisation is an example of American exceptionalism, which might be due to the fact that most American studies focus on race, which is a very salient distinction in North America. Similar claims are made about developing countries, or in the other direction it is sometimes claimed that in general there is little supportive evidence from Europe. The simple summary of empirical findings indeed provides some support for these claims, even though one should note that many studies can be found in both tables, meaning that they show some confirming and some confuting findings. Still, North American studies tend to provide more confirmatory results, which cannot be said

about studies from developing countries or cross-national comparisons and probably neither for Europe. Note, however, that the difference between the North American and European conditional probabilities is much smaller and is itself not significant, which relativises the support. Similarly, it is true that the only *type of fractionalisation* for which Table 2.3 shows some tendency of providing confirmatory rather than confuting evidence is racial fractionalisation, but this does not survive the multivariate test, as the conditional probabilities and standard errors of the linear probability models show. This means there are hardly any tendencies of differences between ethnic, racial, linguistic religious or immigration related fractionalisation.

Another claim concerns the *level of analysis*. Theories such as conflict and contact theory, which are often seen as accounting for the relation between fractionalisation and social cohesion, are seen as being concerned with local-level coexistence and are not necessarily expected to yield explanatory power when countries are compared. While the argument may be true analytically, we again hardly see any differences in terms of the level of analysis. Both studies that focus on regions and those that have other clusters (school classes or experimental conditions for example), show a tendency of rather providing confirmatory findings, both in descriptive and multivariate terms. The latter is mostly due to experimental studies and whether these are seen as especially reliable, because of their internal validity or less reliable, because of their questionable external validity is up to the reader. It is surprising that analysis of regions show a tendency of providing supportive evidence in contrast to cross-national comparisons, while those of neighbourhoods do not. One reason may lie in the importance of opportunities for personal inter-ethnic contact that work against a negative effect of ethnic fractionalisation. This would at least be in concordance with the recent findings on fractionalisation and segregation, which is discussed below.

The final dimension, which is compared in the table concerns the different *types of dependent variables*. There is a descriptive trend for indicators of trust or trust related sentiments to provide confirmatory results and this tendency even survives the multivariate test. The other dependent variables provide a very inconclusive picture. In terms of collective action as well as public goods this might be because of a huge range of unobserved heterogeneity, which becomes obvious if we think about illiteracy (e.g. Kuijs, 2000) or the percent tax money spend on fire prevention (e.g. Hopkins, 2011) as two examples of indicators. Concerning civic engagement, I provide a possible explanation later on in this theoretical background (see page 56).

Overall, there are tendencies of rather more confirmatory results than confuting ones for studies that analyse measures of trust, compare regions, use experimental set-ups and derive from North America. These general tendencies do not

necessarily mean, that they hold in comparison to other types of studies, as the insignificant difference between studies from North America and Europe shows. These few tendencies hardly sum up to any clear pattern. Nevertheless, this insight is important and far from inconclusive, regarding for example the claim there was an American and development country exceptionalism, which does not seem to be the case.

What do these insights suggest in terms of the general question, whether the studies included provide evidence for or against any ethnic fractionalisation effect? In their recent review, which draws on a fraction of the here summarised studies, Portes and Vickstrom (2011) argue that in light of the various operationalisations and the amount of confuting studies the evidence is “not nearly unanimous in confirming that this pattern holds” (Portes and Vickstrom, 2011, p. 476). In combination with the summary statistics just discussed, I judge this differently for theoretical and methodological reasons.

Given the nature of ethnicity as a social identity (see next section) that may be salient under some conditions and not salient under others, it is hardly surprising to find many confuting studies. We can judge this as sketchy and inconclusive, but we can also start to take this as evidence that any relation between ethnic fractionalisation and social cohesion is dependent on contextual conditions. Recently studies have shown that by politicising group boundaries, news media reports moderate the relation between immigrant group size and prejudices (Schlueter and Davidov, 2011; Hopkins, 2010). Similarly, Selway (2011) shows that ethnic fractionalisation is a constraint on long-term growth when ethnic boundaries overlap with others such as religious or class boundaries. The same could hold for social cohesion, meaning that similar processes are probably important in explaining why sometimes ethnically divided populations are less cohesive while sometimes they are not.

From a methodological point of view, it is hardly surprising that a debate in which studies frequently compare about 18 villages (e.g. Varughese and Ostrom, 2001), 21 countries (e.g. Hooghe et al., 2009), fail to report the necessary significance levels. Furthermore, social scientists tend to control for post-treatment variables, as for example Uslaner (2011) who controls for whether neighbours get along well, share values or whether the respondent was treated as not trustworthy, or Sturgis et al. (2011a) who control for the social neighbourhood embeddedness of their respondents⁹ while regressing generalised trust on ethnic fractionalisation. How can ethnic fractionalisation affect generalised trust if not by giving people the feeling that values are not shared, people do not get along well, treat each other as trust- and respect-worthy citizens and are less appealing as acquaintances? Holding these variables constant, I could not imagine an increase in street robberies

⁹the extend to which respondents know their neighbours

and murder to have an impact on trust. Finally, issues like measurement error, unobserved heterogeneity and sample selection bias are so prevalent in the social sciences, especially in comparative research that a concern for type II errors (not confirming a relation that indeed exists) should concern us as much as type I errors (findings a relation that does not exist). In conclusion, these considerations lead me to judge the existing evidence as insufficient to conclude the hypothesis of a relation between ethnic fractionalisation and social cohesion to be falsified. Again, it rather seems that the conditions under which this relation becomes manifest, remain to be investigated.

Common Lines of Critique: *Composition* or *Negative Selection* as Explanations? Even if we accept there to be evidence for a negative relation between ethnic fractionalisation and social cohesion, this might be not be caused by ethnic fractionalisation. Instead, some scholars argue, the relation could be explained by composition effects (e.g. Uslander, 2011) or selection biases (e.g. Twigg et al., 2010).

The first line of critique dwells upon the difference between composition versus context effects. If we observed a difference in average trust levels between two populations A and B, this could have two reasons. Either group A is composed of people who tend to trust less, so that their average trust level is lower. This would be an example of a *composition effect*. Some people claim that the negative relation between ethnic fractionalisation and social cohesion is due to migrants' tendencies to distrust, also called the *trust level effect*: Since many immigrants originate from less democratic and developing countries (Delhey and Newton, 2005) and since ethnic minorities in general have a higher likelihood to be discriminated (Laurence and Heath, 2008), there are more low-trusting people in heterogeneous regions, so that the average level of trust is lower. A *context* effect differs from a composition effect, because it takes interactions and interdependencies between the population into account. If for example natives trusted less because the composition of their group is dominated by minorities, this would be a context effect. In this regard Newton (2007) argues that people tend not to trust others who themselves do not trust, so that the above mentioned composition effect would be accompanied by a context effect.

The claim about an ethnic fractionalisation effect is one about a context effect. The studies summarised above confute the claim that the ethnic fractionalisation effect was merely a compositional effect. Many studies run separate models for minority and majority groups and show the ethnic fractionalisation effect to be stronger for the latter (e.g. Lancee and Dronkers, 2011; Fieldhouse and Cutts, 2010; Soroka et al., 2005) (see also Chapter 5). This means the presence of ethnic fractionalisation drives down the trust and engagement levels of those populations,

who tend to have high trust level, which is evidence in support of a context effect.

The second line of critique has to be taken more seriously. According to this critique, members of ethnic minorities such as immigrants, do not move randomly, but tend to move to deprived areas where renting costs are lower and more co-ethnics are living; minorities self-select into certain deprived areas (e.g. Twigg et al., 2010). In addition, better-situated people who also tend to show higher levels of trust and engagement, tend to move to other areas when the ethnic composition changes (e.g. Crowder et al., 2011; Alesina and La Ferrara, 2002), leaving behind low-trusting majority members. These *two selection processes* suggest ethnic fractionalisation effects to be spurious correlations. Yet, in contrast to the claims that the debate tends to overlook the more central dimension of socio-economic deprivation, nearly all studies reported in the two tables control for the socio-economic condition of the contextual units in some way or another. Indeed, in many studies the inclusion of controls for the socio-economic condition renders ethnic fragmentation effects as insignificant (e.g. van Houtte and Stevens, 2009) or at least the strength of the ethnic fractionalisation effect declines considerably.

Still, in many studies the claim survives the multivariate test that controls for the regional socio-economic condition. Unfortunately, such controls are no solution for the possible out-migration of high trusters and the highly engaged in response to growing fractionalisation. But both experimental studies, where contextual ethnic composition was assigned rather than chosen (Koopmans and Rebers, 2009; Habyarimana et al., 2007), and studies that use more advanced identification strategies such as instrument variables (e.g. Hou and Wu, 2009; Ferrara and Mele, 2006), provide evidence in support of an ethnic fractionalisation effect. In this regard Algan et al. (2011) provide most interesting results in this regard, by focusing on the French public housing sector, where a public administration randomly distributes people to housing blocks, which excludes any self-selection into certain neighbourhoods. After confirming exogenous variation by means of simulations and other tests, they compare their results based on public housing to those of the private housing market where people self-select into housing tracts with more co-ethnics and higher average socio-economic status. They provide the surprising result “that the naïve estimator tends to downplay the true impact of fractionalisation on the overall opinion about housing conditions” (Algan et al., 2011, p. 23). In sharp contrast to the generally formulated concern, increasing ethnic fractionalisation might actually cause people who do not have high levels of general trust in strangers and who oppose people of other ethnic backgrounds to move away, leaving behind those who do not cherish prejudices and enjoy an ethno-culturally diverse and rich neighbourhood life. In short Algan et al.’s (2011) results suggest that self-selection might not bias results in favour but conservatively against the hypothesis that ethnic fractionalisation drives down social cohesion.

Besides the fact that the selection-bias critique overlooks the possibility of a conservative downward bias, it also does not recognise the *Tiebout process* as one of the most fundamental ways in which fractionalisation affects social cohesion. In his seminal article, which since then has become a classical text in economics (see Hoxby, 2000), Tiebout (1956) suggests the importance of citizens' moving decisions in local public goods expenditures, be they that people move away or do not come. In any case, the Tiebout process emphasises that if ethnic fractionalisation caused people to move to other places, this might bias results of cross-sectional analysis, but from a substantial perspective this is one channel via which ethnic fractionalisation affects social cohesion.

In light of the comparison of evidence and the countering of the two most common lines of critique, we can conclude that there is evidence for a negative context effect of ethnic fractionalisation on social cohesion, however strong or weak it may be as compared to other contextual factors, such as economic deprivation. This negative context effect is correlated with other crucial factors that drive down social cohesion and seems to depend for its strength and significance on certain contextual conditions. Given this partial conclusion, I will continue by defining what ethnicity actually is and why we would expect its fractionalisation to drive down levels of social cohesion.

Social Identity and Ethnicity

What is it about ethnicity that makes ethnically divided populations less cohesive? I follow recent trends in the literature and define ethnicity first and foremost as a cognitive category that people might identify with as a social identity (e.g. Wimmer, 2008b; Brubaker et al., 2004). *Identity* is commonly defined as a comprehension of oneself as a constant separate entity that is distinct from one's environment (e.g. Owens et al., 2010; Erikson, 1973). This comprehension of oneself is fundamentally social, since humans' ontogeny is characterised by interaction with other persons. In interaction, the central process that forms our identity is *role taking*, meaning children develop a comprehension of themselves by learning to take the perspective of their interaction partners from which they observe themselves (Banaji and Prentice, 1994; Mead, 1934). By taking the perspective of others children learn to reflect upon themselves and to adjust their actions according to the expectations of others.

These expectations are associated with socially shared cognitive categories, such as being a pupil or a European, which are self-descriptive (I am a German social scientist). When people accept this self description and even value it, they identify with the cognitive category, by which it becomes a *social identity*. Tajfel defines social identities as:

“[...] that part of an individual’s self-concept which derives from his knowledge of his membership of a social group (or groups), together with the value and emotional significance attached to that membership” (Tajfel, 1978, p.63).

In addition to the socialisation into identification mentioned above, people value their memberships in social identities “to seek attachments to others; the pursuit of recognition and dignity; feelings of agency and empowerment; avoiding fear and anxiety” (Howard, 2000, p. 385). I prefer to speak of categories rather than groups, because people who share a social identity do not necessarily act as a group. This is best expressed in White’s (2008, (1965)) idea of a *catnet* that suggests a group to be the combination of a social category with a dense network, a distinction that first becomes relevant when researchers expand their focus from the experimental lab to everyday life.

Identification and Collective Action Given the definition above, one could be inclined to count identification as an aspect of social cohesion as for example when one measures community attachment. However, instead of defining identification in a way that trusting in-group members is part of it, identity theories explain why identification makes us trust in-group members and why it is a motivator for collective action, with at least three theoretical arguments.

The first argument stems from classical *role theory* (e.g. Merton, 1957; Parsons, 1967) and emphasises the role character of those categories people identify with, so that Owens et al. (2010) even speak of role identities. In this regard, social identities are associated with expectations or even defined by certain actions; being a parent means to raise one’s children or working as a waiter means to serve guests. By identifying with certain self-descriptive roles and categories, people feel committed to meet the associated expectations. In other words, by meeting the expectations people live out their identities. Classical scholars even claim that roles are internalised along with their associated expectations and commitments (e.g. Parsons, 1967). Some of these expectations involve instances of collective action as when citizens are expected to do military service. By meeting this demand they enact their national identity.

A second theoretical argument originates from *social identity theory* (Tajfel and Turner, 1986), which highlights humans’ motivation to have a positive self-conception. Since personal identities (one’s self-conception) consist of social identities, people evaluate themselves and are evaluated by others according to their social identities. For this reason, they have an interest to act in favour of their social identity’s reputation and other members of their social identity so as to positively enhance and distinguish it (Tajfel and Turner, 1979): “a need for positive distinctiveness drives social identity” (Huddy, 2001, p. 134). This means for

example that nurses try to give their profession a positive image and engage in collective actions such as strikes to enhance the overall well-being of nurses. As a result, they can feel proud to be a nurse.

A third argument highlights collective identities and originates from *social movement* research (e.g. Owens et al., 2010). Here it is argued that in certain situations people disregard their personal and social identities in favour of collective identities, which define individuals as one part of a holistic whole, so that “the mechanism of group identity is sufficient to produce cooperation” (Anthony, 2005, p. 499).

Ethnicity as Ethnic Identity

Folk conceptions of ethnicity imagine it to characterise populations who identify as an ethnic group, because they share a common culture and act as a group. Following this conception, one is inclined to start hypothesising why different ethnic groups struggle to share and produce public resources together and lay the foundations for a common cohesive society. Such attempts are criticised by scholars who see *ethnicity as cognition* and object that ethnic categories do not necessarily reflect real-existing groups that might struggle with one another, but are first and foremost cognitive distinctions that actors impose on the world; “They are ways of recognizing, identifying, and classifying other people” (Brubaker et al., 2004, p. 47). The critique originates from anthropology where ethnographic research has shown first, that ethnic categories oftentimes do not overlap with cultural habits (Barth, 1969), second identifications with a variety of ethnic categories do not reflect organised groups (Nagata, 1974), and finally people do not necessarily identify with all ethnic categories that are imposed on them (e.g. Huddy, 2001). While this position qualifies over-simplistic views on ethnicity by emphasising the key role of actors’ cognition, it does not see ethnicity as a purely subjective and hence arbitrary perception; ethnic categories may overlap with cultural differences as well as clusters of networks, but this does not necessarily need to be the case (Wimmer, 2008a,b). Overall, this recent literature suggests to conceptualise ethnicity first and foremost as a cognitive category that people might identify with as a social identity and that might be supported by networks or an organisational structure and common cultural practices and moral orientations. The degree to which this is the case is variable. For this reason the next two sections will deal with networks and culture, while this section focuses exclusively on the social identity aspects of ethnicity.

Qualifying ethnicity as cognition does not answer what characterises certain classifications as ethnic. I follow (Weber, 1987, (1922)), who proposes that ethnic groups are characterised by being concerned with a common descent:

“We shall call ‘ethnic groups’ those human groups that entertain a subjective belief in their common descent because of similarities of physical type or of customs or both, or because of memories of colonization and migration” (Weber, 1987, (1922), p. 389).

In order not to confound ethnicity and kinship, Fearon (2003) suggests the additional qualification that the denoted population must be larger than a family unit. In contrast to Weber’s ethnic groups, ethnic categories can also be imposed on people who do not identify as such. Despite both qualifications, the definition explains well why the “most common ethnic boundary markers, in the ethnographic record, and most pervasive, in any system of ethnic differentiation, are kinship, that is, the presumed biological and descent unity each group member has and outsiders do not” (Nash, 1996, p. 25). Accordingly, ethnic categories can also involve race as in the US, religion as in Northern Ireland, language as in Belgium, or nationality as in many immigrant-receiving Western European countries (Banton, 2011; Fearon, 2003), which is why all these types of divisions are included in Tables 2.1 and 2.2.

At the same time this definition also shows that we need to be careful when comparing different types of fractionalisation. Principally, the type of common descent belief could have an impact and differ systematically between religiously, nationally or racially characterised ethnicities. Religious common descent beliefs for example can principally be adopted when one changes the religious denomination, which is not always the case for national or ethnic descent beliefs. Yet the comparison of evidence shows hardly any such tendencies. Also the above mentioned role character, the expectations and commitments associated with certain ethnic categories such as Basque, Hispanic or Northern Irish could vary tremendously. Maybe herein lies the reason why people of some ethnic background react positively to ethnic divisions in the population or to the presence of certain ethnic others (e.g. Hungerman, 2008).

The reason might also lie in the nature of stereotypes that people hold about certain others. Gundelach and Traunmüller (2010) decompose the significant effect of a colour blind Hirschman-Herfindahl index of ethnic diversity into percentages of EU, Turkish, Ex-Yugoslavian and other foreign nationals, and find native Germans to react with lower trust only to increasing percentages of Turks. Similarly, Laurence and Heath (2008) use a set of dummy variables, which indicates concrete ethnic compositions of neighbourhoods and show that those in which Whites and Indians live together have significantly higher levels of social cohesion than purely White neighbourhoods. Yet, neighbourhoods composed of Whites, Pakistani and Bangladeshi have significantly lower levels. On the one hand these findings could also be a product of different cultural backgrounds, which will be discussed below. On the other this demands for fewer cross-country comparisons and more country

case studies that provide discussions of the concrete ethnic relations. Taken from this angle, Vermeulen et al.'s (2011) study is very interesting, because it shows an increase in the negative effect of ethnic fractionalisation on the density of leisure associations, which they relate to recent events in the Netherlands such as the murder on Theo van Gogh. The downside of such an approach is that it is very particular, so that the question is raised whether there are any generalisable conclusions to be drawn. Given this background, I will continue to discuss theories dealing with cognitive biases in general, rather than certain stereotypes in particular.

Cognitive Biases: Linking Ethnic Identity and Declines of Social Cohesion

In-Group Favouritism as a Potential Explanation¹⁰ Social identity theory states that people strive for a positive evaluation of their social identities. On the one hand this means that they act pro-socially toward other group members, as was mentioned above. On the other hand, social identity theory also posits that people strive for positive evaluation of their social identities in relation to other identities they do not identify with, meaning:

“that this positive identity derives largely from favourable comparisons that can be made between the ingroup and relevant outgroups” (Brown, 2000, p. 747).

This tendency leads humans to discriminate against other people in such ways that the difference between their social identity and the others is maximised, even if this comes at absolute costs (Tajfel et al., 1971). This cognitive bias, which leads people to act in favour of others who are part of the same category, but also to discriminate members of other categories for relative advantages is called *in-group favouritism*.

Quoting this cognitive bias, some scholars argue that people might not be willing to support the production of public goods if members of other ethnicities can consume them (e.g. Kimenyi, 2006; Alesina et al., 1999), or are not willing to participate in associations that are not homogeneous (e.g. Alesina and La Ferrara, 2000), since this would benefit all and not maximise the difference between groups. This explanation could account for the empirical findings on all levels, since in-group favouritism would make people withdraw from diverse neighbourhood life, but also compromises their willingness to share welfare benefits with people of

¹⁰Despite the terminology established above, I will not talk about in- and out-categories or -identities, but stick to the terms in- and out-group as used in the literature on in-group favouritism.

different ethnicity. Furthermore, it would predict social cohesion to decline irrespective of whether the ethnic composition diversifies or polarises, and makes no statement about co-existence of concrete ethnicities.

While the theory has received a lot of empirical support over the last decades (for a review see: Brown, 2000), concrete evidence in relation to the debate on ethnic divisions and social cohesion is scarce, because the implications of the theory are best tested in experimental settings. Alesina and La Ferrara (2000) for example can only show lower rates of participation in heterogeneous communities, without showing whether members of such associations are more diverse, which is the assumption of this argument, as Coffe and Geys (2007) rightly note. This assumption is questionable, since people tend to associate with others who are alike (DiPrete et al., 2011; Zheng et al., 2006). In line with in-group favouritism, Swaroop and Morenoff (2006) show that participation in ethnic or national associations even increases with ethnic fractionalisation. Some studies show that the effect of ethnic fractionalisation is stronger for people who oppose racial mixing (Alesina and La Ferrara, 2002, 2000) or show other anti-integration attitudes (Marschall and Stolle, 2004), which both might be interpreted as proxies for stronger in-group favouritism. Okten and Osili (2004) on the other hand find confuting evidence in their investigation of money and time spent for community organisations in Indonesia. A benefit ratio that indicated how much the own ethnicity benefited from a public good was not significant.

One possibility to support in-group favouritism as an explanation would be to show a moderating impact of ethnic identification, since people who do not identify with their ethnic background have no reason to discriminate people of other ethnicities according to this theory (Mummendey and Kessler, 2008). Fong and Luttmer (2009) support this assumption with experimental evidence. According to their results, only those respondents who identify with their racial group tend to give less to hurricane Katrina victims if the latter are displayed as black in the images that are the experimental treatment. Their results also support the definition of ethnicity as first and foremost a cognitive category that people may or may not identify with, instead of real existing groups: “This result suggests that subjective identification with one’s racial group is an important determinant of giving, and that objective race, by itself, is not as good a predictor of racial group loyalty” (Fong and Luttmer, 2009, p. 67).

Cross-Cuttingness as Attenuator Political sociologists like Lipset and Rokkan (1967) or Rae and Taylor (1970) developed the by now classical concept of cross-cuttingness of cleavages. A *cleavage* is a social division along which diverging interests align, such as class. *Cross-cuttingness* means that a person’s positioning in relation to one cleavage has no or little implication for the positioning in regards

to other cleavages. Where the opposite is the case, as for example in the USA where race and class are overlapping to a large degree, the salience of social identities is believed to be increased so that societal divisions and feelings of multiple disadvantage become severe. Cross-cuttingness between categories such as class, race, religion, region and so on is believed to increase social cohesion and thereby stabilise political systems. From a social-psychological perspective cross-cuttingness between categories decreases in-group favouritism, because derogating a person of another ethnicity might compromise the evaluation of one's religious identity that is shared with this person (Brown, 2000). The analysis of cross-cuttingness is hence congruent with in-group favouritism.

From this follows that if ethnic identity cross-cuts other identities or cleavages, the negative relation between ethnic fractionalisation and social cohesion should be attenuated (Selway, 2011). Like in-group favouritism, which can be neatly integrated with this approach, the explanation works theoretically for all levels from neighbourhoods to nations. In principle the attenuating impact should hold for polarised, diverse or for regions where any concrete groups co-exist. The explanation's embeddedness in and empirical support from political science, sociology and social psychology as well as its congruency with other approaches makes it very appealing.

However, in relation to social cohesion, empirical investigations hardly exist. Recently, Selway (2011) proposed a measure of cross-cuttingness and indeed finds that higher levels of cross-cuttingness between ethnic categories and religious categories are associated with stronger increases in countries' GDP. He even shows that the negative effect of ethnic fractionalisation seems to depend on the level of cross-cuttingness. The more ethnic categories overlap with others, the stronger the negative impact of ethnic fractionalisation on GDP growth. Dunning and Harrison (2010) provide experimental evidence from Mali by showing how the category of joking cousins, which cuts across ethnicity, levels the salience of ethnicity as a criterion in respondents' judgements of politicians' speeches. Whether the candidate is a joking cousin is equally important and since this does not correlate with ethnicity, the latter is only one important dimension among others and loses in salience. Another route is taken by Baldwin and Huber (2010), who show a measure of ethnic group-based income inequality to be a better predictor of public goods provision in their cross-national comparison than mere ethnic fractionalisation. While most of these studies are not concerned with social cohesion, this seems to be a very promising approach.

Competition and Group Threat as Potential Explanations Another approach that deals with cognitive biases is *competition* (Olzak, 1992) or *group threat theories* (Bobo, 1999; Blalock, 1967; Blumer, 1958), which state that discrimination

results from group based competition for economic, social and symbolic resources. People react to these feelings of threat with prejudices and discrimination, which they see as instrumental means in the struggle for status goals and symbolic representation:

“[...] discriminatory behavior is perceived to be instrumental, either for large numbers of persons or for influential elites, in achieving status objectives by these most efficient means” (Blalock, 1967, p. 49).

The group threat literature is more subtle in that it posits people to be threatened by competition and more recently also emphasises that these threats can be perceived and need not be real (e.g. Quillian, 1995), which is why I think it is fair to treat these approaches under the umbrella of cognitive biases.

Competition and threat theories explain the relation between social cohesion and ethnic fragmentation by arguing that the struggle for resources and representation compromises the competitors' trustworthiness and renders collective endeavours unlikely (Hou and Wu, 2009). In contrast to research on in-group favouritism, however, some of the scholars who work on competition and group threat theories make clear assumptions on the kind of ethnic fragmentation that is expected to be a burden to social cohesion. Dincer (2011) claims that “Conflict is less likely in societies in which fractionalisation is minimal or maximal” (Dincer, 2011, p. 291). This theoretical approach also opens up the possibility for a game theoretical perspective on the groups' and individuals' strategic behaviour in such a competitive scenario. And indeed, Montalvo and Reynal-Querol (2005) show with a formal rent-seeking model how individuals have the highest interests to devote resources for lobbying for their group in situations where two equal opponents face each other. With *parochial politics* Banerjee and Pande (2007) discuss a mechanism that suggests ethnic polarisation rather than fractionalisation to affect public goods provision, at least for electorally relevant contexts. According to their reasoning, ethnic competition causes people to vote for ethnic parties. Yet, the stronger the tendency to have an ethnically defined electorate, the less do parties have to compete with one another and serve the population. In line with this argument, they present evidence from India, which shows that in regions where ethnic parties win because their ethnic electorate is the majority, levels of political corruption increase significantly over time. In addition to overall decline in government quality, Zerfu et al. (2009) argue that majorities patronage members of their own ethnicity, which in turn drives down minorities trust and willingness to support public goods production; Zerfu et al. (2009) report a significantly negative effect of ethnic nepotism¹¹ on generalised trust. These scholars hence state that ethnic polarisation, rather than fractionalisation is harmful to social cohesion.

¹¹for information on the operationalisation see Vanhanen (1999)

This explanation can also account for the findings on all levels, since people can feel to compete over welfare benefits as well as local jobs. In principle the approach can also be integrated with in-group favouritism, since social identity would state that in-group favouritism becomes more severe given feelings of group threat and would state that people strive for relative advantage in the competition (Brown, 2000). Cross-cuttingness could again work as attenuator, since the more ethnicity overlaps with class or religion, the more do people have to defend their resources or symbolic representations.

The various findings according to which especially majority members are affected by ethnic fragmentation (e.g. Lancee and Dronkers, 2011; Fieldhouse and Cutts, 2010; Soroka et al., 2005) are generally in line with the competition and group threat approaches. It is the majority, whose societal position is most threatened by the presence of minorities, whereas other explanations suggesting in-group favouritism, asymmetrically distributed preferences or coordination problems (see below) concern all people irrespective of their minority or majority status. Yet, some studies contradict some of the implications of competition models. Tolsma et al. (2009) show that the negative relation between ethnic fractionalisation and contact to neighbours is not stronger for low-educated or low-income groups, even though these should be most threatened by immigrant minorities who tend to be low educated and low in status as well. More recently, Hou and Wu (2009) test the prediction explicitly and show that trust declines with the increase of minority concentration, but increases with racial fractionalisation if controlled for the former.

Matsubayashi (2010) provides an interesting synthesis, by showing both ethnic polarisation and fractionalisation to be important in different regards. He shows that a balanced situation in which there are as many out-group as in-group members stirs threat, but also provides enough in-group members to mobilise political action so that people in such contexts show high political engagement. In very diverse contexts, with few in-group members, however, people withdraw from public social life. Matsubayashi (2010) results show that in-group favouritism, cross-cuttingness and competition or group threat approaches interact and can be integrated with one another neatly. In-group favouritism works in diverse and polarised situations, but becomes stronger in the latter situations when people feel their group's position to be threatened. Cross-cutting identities attenuate both effects.

Competitive Collective Action as a Potential Explanation for Some of the Confuting Findings Matsubayashi's (2010) argument also suggests an alternative interpretation of some of the evidence that seemingly speaks against a negative effect of ethnic fractionalisation, since ethnic divisions might even encour-

age collective action. Because of the competition and conflict, which is fostered by ethnic divisions, people might be more likely to act for their particular group interests and thus engage in what Tilly et al. (1975) call *competitive collective action*. Indeed, even Putnam (2007) does not only provide evidence for people in diverse communities to hunker down, but also shows that in ethnically diverse areas people are more interested in politics, and participate more often in protest marches and social reform groups. In line with this argument, ethnic fractionalisation increases engagement in ethnic, nationalist or expressive organisations, and decreases participation in instrumental and leisure ones is lower. (Vermeulen et al., 2011; Swaroop and Morenoff, 2006; Soroka et al., 2005; Leal, 2002). These results suggest that ethnic divisions encourage civic engagement. Certain degrees of conflict can have an integrating effect as Simmel (1904) noted early on, and may support democracy and civic engagement. The question is, whether such ethnic conflict is carried out in a democratic way or whether people join racist associations.

Conflicting or Exclusive Loyalties and Identification as an Affected Intermediary Outcome People's personal identity consists of various social identities, which can overlap and reinforce each other, but also come into conflict with one another and attenuate commitment and loyalty (Owens et al., 2010; Ellemers et al., 2002). One possibility why one identity prevails over others is that the associated expectations and commitments are contradictory. Merton's (1957) role-set theory is concerned with such situations and examples might include a parent who has to fetch his children from school but needs to attend a meeting at work during the same time. It has been shown that conflicting loyalties inhibit mobilisation for protest (Kurtz, 2002; Gerhards and Rucht, 1992) and could hence be a burden for neighbourhoods' or countries' social cohesion. A second possibility is that one identity is so salient to a person that it dominates his personhood and creates *exclusive loyalties*.

Following this line of reasoning, we can conclude that if people felt conflicting loyalties between their neighbourhood or national identities on the one hand and ethnic identities on the other, they could feel less committed to meet the expectations associated with being a citizen or neighbour. This explanation could account for the empirical findings on all levels, since conflicting or exclusive loyalties can drive down neighbourhood, regional and national identifications. Indeed, neighbourhood ethnic fractionalisation has been shown to have negative effects on community attachment (Letki, 2008; Rice and Steele, 2001) and schools' ethnic fractionalisation on national identification (Agirdag et al., 2011). However, Agirdag et al. (2011) also control for the percent of minorities, which increases at least the native pupils' national identification. Other neighbourhood studies show

no or even a positive relation between ethnic fractionalisation and community attachment (Laurence, 2011; Laurence and Heath, 2008; Lall et al., 2004). In this regard the existing research is sparse and inconclusive.

One should not overlook, however, that this argument is basically about a composition effect, so that controlling for individual levels of ethnic identification there should be no differences between ethnically divided and homogeneous regions, given that the conflict of commitments between neighbourhood or national identities on the one hand and ethnic identity on the other are then held constant. In addition what would be the identity of natives in Europe that drives down their national identification? This suggests that this explanation might yield most value for ethnic or religious minorities.

Clustered Networks and Ethnicity

The social embeddedness of persons, i.e. their regular social interactions with other people as represented in networks, can be seen as an important aspect of ethnicity and at the same time a primary cause of social cohesion. For this reason, it makes sense to consider that ethnic fractionalisation might affect levels of social cohesion via the network structure of populations. In the study of ethnicity, authors treat the degree to which an ethnic identity is also represented in dense networks among its members or even has an organisational basis in the form of associations or parties as its *groupness* (e.g. Brubaker, 2004, p. 11), which can vary from non-existent to strong. Groupness can result in clustered networks, meaning that people tend to associate with co-ethnics but to a lesser degree with other people. Regionally segregated ethnic groups, such as the Amish, build one extreme of the scale.

Missing links between clusters of networks can be problematic, because overall network density enables social control via sanctioning and reputation, which again is a foundation of generalised trust and the willingness to support the production of public goods that are shared by the population at large, including all ethnicities. This was first shown in game theoretical research on iterated prisoners dilemmas (Axelrod, 1984). If a collective action problem is faced on and on again in iteration, selfishly rational actors realise that if they do not cooperate this time, no one of the others will do the next time, so that the possibility not to cooperate and still consume the public good only exists initially. In iterative scenarios, they would destroy future opportunities by defecting and Hardin observes precisely: “the real penalty here is not that others will no longer rely on me but that they will not let me rely on them” (Hardin, 2002, p. 19). In such situations, even selfishly rational actors might cooperate, since it is one of the possible rational strategies. Following Axelrod (1984), we can call this the *shadow of the future*: when people expect to

meet each other again, they may come to the convention to cooperate, because they fear to be sanctioned for their behaviour in the future and hence networks of regular interaction have the potential to be a solution to the collective action dilemma. Coleman (1990, p. 318) called this mechanism of increased social control via network density *closure*. In this regard Kim and Bearman (1997) show that, in extremely dense and saturated networks, “successful collective action is the norm, not the exception” (Kim and Bearman, 1997, p. 88). Especially in the social movements literature, ties to other participants are shown to be an important predictor of collective action participation (e.g. Gould, 1995; McAdam, 1988).

Even if people do not meet again, but still know about the others’ tendencies to defect or cooperate during earlier collective endeavours the collective action dilemma can be solved. This is enabled by reporting an actor’s betrayals to future cooperation partners who then will not trust him anymore. This fear for their reputation, is what Axelrod (1984) calls the *shadow of the past*. Again, networks are important, but in this case rather for spreading information than for future sanctioning. Accordingly, this perspective emphasises the importance of *weak ties* (Granovetter, 1973), which bridge between different network clusters, enable the diffusion of information and thereby increase the relevance of reputation.

Social Control as a Potential Explanation Some scholars claim that ethnic fractionalisation goes along with few network contacts between groups, clustered networks and low potentials to sanction freeriders of other ethnicity (e.g. Miguel and Gugerty, 2005). This explanation is very appealing for its alternative logic to all discussed cognitive bias explanations. However, it can only account for the findings that relate to neighbourhood or at best regional contextual units. Sanctioning that depends on personal interaction cannot account for support for the welfare state or other nation-wide measures of social cohesion. This explanation also seems especially suited to developing countries, where sanctioning is less effectively institutionalised as for example in Europe. But as will be discussed below, there are other possibilities how networks are related to cognitive biases and hence could be of larger importance.

Studies in the debate on ethnic fractionalisation and social cohesion that investigate this aspect are very scarce. Most support comes from Habyarimana et al. (2007), who conducted experiments in Uganda and show that if the own identity is visible to other players in dictator games, people are much more likely to give funds to co-ethnics, whereas under anonymity they display no such behaviour. People seem to fear that particularly co-ethnics could find and sanction them or compromise their reputation in the aftermath of the experiment. Secondly, Habyarimana et al. (2007) let participants search for random people in their neighbourhood and showed that co-ethnics are found significantly faster,

implying low mobilisation rates and knowledge diffusion between ethnic network clusters. Karlan (2007) comes to similar conclusions in his investigation of banking groups in Peru. He shows that in ethnically homogeneous groups, more is known about people who default on their credit schedule or those who even drop-out of the banking group altogether. Further support comes from Björkman and Svensson (2010) who investigate heterogeneous treatment effects of an experiment in Uganda. For this study communities were randomly treated with support in establishing a community meeting that was designed to strengthen the communities' monitoring of public health services. While there was a significant and considerable average treatment effect, the heterogeneity in the effect was strongly associated with ethnic fractionalisation, rendering the treatment to be less effective in more heterogeneous communities. Miguel and Gugerty (2005) test the assumption on sanctioning potentials with rather unique data on the amount of collected school funds and maintenance of wells in Kenya, which they show to be lower in diverse communities. Their results indeed confirm that fractionalisation goes along with lower levels of sanctioning, with the latter measured by the minutes the school conference speaks about sanctioning and effort given to it. They validate their operationalisation via qualitative interviews with 22 headmasters.

Yet, in his investigation of Fisheries and Irrigation cases, Ruttan (2006) finds a relation between fractionalisation only for the levels of formal, but not of informal sanctioning. Alexander and Christia (2009), too, report that during their public goods game experiments, respondents in diverse treatment groups did not sanction free-riders for they believed it to be less effective.

Networks and Identification Next to social control, networks are also important for levels of identification. (White, 2008, (1965)) developed the idea of a *catnet*, that combines categories and networks. While categories, i.e. social identities, are sets of people who have some characteristic in common, a network is a system of relations between people. A catnet is the overlapping or combination of the two, meaning that there is concrete interaction between the people who have a characteristic in common. This parallels the discussion on groupness (e.g. Brubaker, 2004).

A catnet is expected to be a stronger motivator for participating in collective action, because categories that overlap with networks correspond to the everyday experiences of actors: "An appeal to solidarity will only succeed to the degree that the collective identity it invokes classifies people in a way that plausibly corresponds to their concrete experience of social ties to others" (Gould, 1995, p. 18). Gould supports his argument with an appealing analysis of the Revolution of 1848 and the Paris Commune of 1871. Ethnically clustered networks can hence strengthen any of the above-mentioned cognitive biases.

Possible Mechanisms for “Constrict Theory” In my view, the closure argument can also be expanded to formulate an explanation for Putnam’s (2007) “Constrict Theory”, according to which fractionalisation even reduces in-group trust. I assume that individuals expect others who are embedded in dense networks to be more trustworthy, since embeddedness constrains defective actions and thus makes embedded alters more predictable. If people tend to perceive neighbours in diverse neighbourhoods as locally less embedded, they might tend not to trust them irrespective of their ethnicity. A co-ethnic living in the same diverse neighbourhood is perceived as a rather locally isolated or atomised individual and atomised individuals are less trustworthy, so my hypothesis.

Contact Theory and *Inter-ethnic Ties* as Attenuators While the above mentioned argumentation emphasises the importance of contacts between people of different ethnic background for reasons of social control, contact theory (Pettigrew, 1998; Allport, 1954) emphasises the prejudice-reducing effect of such *bridging* or *inter-ethnic ties*. Bridging ties are relations between people who are members of different categories, in case of ethnicity, inter-ethnic ties (Putnam, 2000; Gittel and Vidal, 1998). Such inter-ethnic ties are expected to reduce prejudices and thereby increase overall levels of trust, because via regular interaction people realise shared interests and learn to feel empathy for each other. Thereby they increase levels of generalised trust. Theoretically inter-ethnic contact should attenuate any fractionalisation effect whether on the neighbourhood or national level, because it is supposed to reduce threat and prejudice in general. Furthermore, since inter-ethnic contact lets people realise shared commonalities, there is a theoretical link to the above-discussed bias mechanisms and especially cross-cuttingness as an attenuator. Hence contact theory also integrates nicely with the earlier discussed theories, which gives it further appeal.

The moderating role of inter-ethnic contacts is supported by a couple of studies that indeed show how they generate (inter-ethnic) trust (Rudolph and Popp, 2010; Sturgis et al., 2011a; Tam et al., 2009; Stolle et al., 2008; Marschall and Stolle, 2004) and attenuate the negative impact of ethnic fractionalisation on measures of social cohesion (Savelkoul et al., 2011; Laurence, 2011; Stolle et al., 2008; Phan, 2008; Stoll and Wong, 2007; Pennant, 2005). It may seem contradictory that inter-ethnic contact should restrain any ethnic fractionalisation effects since a negative relation between ethnic fractionalisation and social cohesion seems to imply prejudice-increasing rather than decreasing effects. The importance lies, however, in the type of contact. While mere co-existence results in feelings of threat and induces in-group favouritism, personal contact decreases prejudices. Ethnic fractionalisation seems to induce both; it decreases threat and prejudices by generating the opportunity for inter-ethnic contact, but it increases it for those who do not

make use of the opportunity and hence only feel threatened by out-group members (e.g. Schlueter and Scheepers, 2010; Schlueter and Wagner, 2008). While experimental research provides evidence of the causal power of inter-ethnic contact (e.g. Pettigrew and Tropp, 2006), it is unclear to which degree the survey research on the moderating role of inter-ethnic contacts is due to selection effects. People who are less prejudiced and in favour of inter-ethnic coexistence are more likely to engage in inter-ethnic contact.

Culture and Ethnicity

Ethnic fractionalisation also means cultural diversity, a diversity in world-views and lifestyles, particularly in European countries where ethnic fractionalisation is the outcome of immigration from other parts of the world. Culture is, however, a concept that is difficult to grasp. Classical views, which saw culture as a “bounded universe of shared ideas and custom” (Keesing, 1994, p. 301) are of little use to the study of ethnic fractionalisation, since inter-ethnic co-existence bridges boundedness. Younger theories emphasise that culture is not a fixed system of meanings, ethics and habits, but the outcome of constant processes of negotiation (Wimmer, 2005). But what are constituent parts of the culture that people negotiate about and that we can see as a third potential aspect of ethnicity along with identification and relational embeddedness? For the current work, I believe it makes sense to conceptualise culture to consist of two aspects, each of which is associated with a potential explanation of the relation between social cohesion and ethnic fractionalisation.

Moral Systems and *Asymmetric Distribution of Preferences* as a Potential Explanation A classical view on culture stems from Parsons (1972), who conceptualised culture as generally being concerned with meanings, but sees it primarily as a society’s moral system that actors internalise during their socialisation. As such it includes goals, aims to strive for, as well as norms of ethical behaviour and shall thereby generate mutual orientations, so that:

“[...] the normative cultural meanings defining desirable patterns of social interaction come to be regarded as the standards by which unit action shall be evaluated” (Parsons, 1972, p. 256).

Following this view of culture, ethnic fractionalisation might actually be a diversity in normative cultural understandings of what would be desirable goals and which standards social interaction should follow.

From this view stems the claim that ethnically divided contexts are less socially cohesive because people have asymmetrically distributed preferences, meaning they

value different goods and strive for different ends (e.g. Habyarimana et al., 2007; Kimenyi, 2006). Such asymmetries in preferences can be of benefit since they can cause a single individual to provide the public good all by himself. A rich landowner might have such an interest in a high-speed internet connection that he pays for the installation of the cable to the whole village. But asymmetrically distributed preferences can also prohibit any production of public goods when among all possibilities no shared collective interest can be compromised on. Furthermore, since people know others to differ in what they think is moral and desirable, Page even claims that culturally diverse situations erode trust because they are a “. . . potential for disagreement [that] may create incentives to misrepresent how we feel. We may try to manipulate process and agenda, creating distrust and dislike” (Page, 2008, p. 239). If people in ethnically divided contexts cannot agree on shared interests they do not engage in collective endeavours and also do not trust each other to be capable of such collective action. Depending on the moral views, asymmetric preferences could explain the empirical findings on all levels investigated, from local speed limits to welfare redistribution.

Empirical studies on this assumption are rare, because preferences are difficult to measure. Ruttan (2006) indeed finds that in more culturally heterogeneous communities, there are more diverse views on resources and how they should be used collectively. One of the other few concrete tests is done by Habyarimana et al. (2007), who asked individuals of different ethnic backgrounds in Kenya about their preferences for various public goods, but they find no significant differences.

Other studies provide suggestive evidence. Okten and Osili (2004) find that minorities spend significantly less time for the production of local public goods, which might be because the public goods are serving the interests of the majority. But a ratio indicating how much the own ethnic group benefits from the public good has no effect on the time spent on public goods production. They conclude that minorities profit equally from public goods, but still contribute less because they value different goods. Interesting suggestive evidence is presented by Banerjee and Somanathan (2001) who show that in more heterogeneous communities the number of political candidates is larger and the vote share of winning parties lower, which implies that political preferences are more diverse. Relatedly, Alesina et al. (2004) show evidence according to which more racially heterogeneous populations are less likely to form a common jurisdiction in which they would have to compromise on policy preferences. Since segregation is not achieved by separate jurisdictions, asymmetrically distributed preferences seem a likely cause of the finding. Bandiera et al. (2005) provide interesting evidence from fruit workers on a UK farm, whose individual pay is determined by the ratio to their assigned group's average productivity. When workers are assigned to groups of rather diverse ability they are more productive, meaning they do worse in coordinating

that everyone works less so as to gain the same payment under lower overall productivity. In such situations, the more able have less interest (meaning different preferences in the public good) in cooperating because their ability makes it easy to perform better than the group average. Since others can reason this, everyone starts to defect. The reasoning of asymmetrically distributed preferences also motivated Baldwin and Huber (2010) to show the impact of group-based economic inequality on public goods provision, because: “Group-based economic differences can lead to different group needs with respect to public goods, feelings of alienation or discrimination by some groups, different attitudes toward redistribution across groups, and different “class” identities by different groups” (Baldwin and Huber, 2010, p. 644).

Culture as a Toolkit and *Coordination Problems* as Potential Explanation A second, more recent view on culture sees it to consist of habituated routines of action and ways to do things, so that Swidler (1986) speaks of culture as a *toolkit* consisting of practices that enable actors to achieve certain things:

“Culture influences action not by providing the ultimate values toward which action is oriented, but by shaping a repertoire or "tool kit" of habits, skills, and styles from which people construct "strategies of action" ” (Swidler, 1986, p. 273).

The practices and strategies are shared and common, because people learn or imitate them from others, which is why Boyd and Richerson define culture as: “information capable of affecting individual’s behavior that they acquire from other members of their species through teaching, imitation, and other forms of social transmission” (Richerson and Boyd, 2005, p. 5). Most importantly cultural practices enable us to interact with others, because they entail tools to produce symbols of shared meaning.

Given this background, some scholars claim ethnic fractionalisation as cultural diversity leads to problems in the exchange of meaning and hence to coordination problems. In line with this explanation, experimental studies show how groups that are allowed to communicate solve social dilemmas at much higher rates (e.g. Vincent, 1998), and according to observational data recent immigration and low language skills, which both indicate a lack of shared cultural background with members of the receiving society, lower the likelihood to participate in associations as well as trust in one’s neighbours (Stoll and Wong, 2007; Stoll, 2001). Since communication is key to any form of cooperation, language heterogeneity should be way more important than heterogeneity in ethnic categories. Furthermore, this is an argument for considering diversity rather than polarisation as problematic, since communication and coordination will suffer the more different ways to communicate and and strategies to derive ends exist in parallel. While the

explanation seems best suited to explain the empirical findings on neighbourhood levels, since it is about concrete interaction, some scholars like Deutsch (1966) emphasise the importance of shared language and other tools to exchange meaning as decisive for successful nationalism.

Overall, the evidence is mixed. Kooij-de Bode et al. (2008) provide experimental evidence according to which ethnically diverse groups are less efficient in elaborating important information, because they try to seek for a compromise too early. The question is whether such a tendency indeed translates to lower levels of social cohesion and production of public goods. Leigh (2006) indeed shows that in contrast to linguistic diversity, ethnic heterogeneity has no significant effect on local trust and only a marginally (10%) significant positive effect on generalized trust if both measures are included in the model. Anderson and Paskeviciute (2006) also report a stronger effect of linguistic heterogeneity on trust and Kaniovski and Mueller (2006) on voter turnout. Lancee and Dronkers (2011), however, find no effect of migrants' average Dutch language proficiency on trust in direct neighbors, one's neighborhood, or inter-ethnic trust. Recent cross-national studies, however, started to weight commonly used measures of diversity so that these reflect the degree of linguistic difference between ethnicities. Following such an approach, Desmet et al. (2009) find that such indices are indeed associated with lower levels of government redistribution, in contrast to unweighted measures of linguistic diversity. But in a similar cross-national comparison that relies on arguably more reliable measures of public goods provision, Baldwin and Huber (2010) do not confirm this conclusion. Even without language problems, people might still misunderstand each other, because of more tacit differences in meaning production. Habyarimana et al. (2007) try to test this argument by letting people with different ethnic backgrounds from Uganda solve puzzles. Arguably cultural differences between ethnic groups would rather regard gender and parent roles or expectations on punctuality rather than communication skills involved in puzzling and so it is perhaps no surprise that Habyarimana et al. (2007) find no supportive evidence with this experimental set up.

Lifestyles and Networks Cultural differences also involve differences in lifestyles and daily routines, which do not necessarily translate into communication problems; people might listen to different music, enjoy different activities or enjoy the latter at other times of the day. There are also varying dietary norms between ethnicities, such as the prohibition to eat shell fish or to drink alcohol. Overall, such differences in lifestyles can prohibit interaction with people who do not share the norm or at least can reduce the opportunities to engage in contact. Bars are one of the most important places to meet and engage with one's neighbours in European countries. Yet, many Muslim migrants prefer to meet at places where

no alcohol is served. If such cultural differences lead to less interaction between groups, overall network density is lower in ethnically divided contexts and so mechanisms involved with social control as elaborated above will be less efficient. This shows that cultural explanations can be integrated with network approaches.

Signalling Effects and Identity Some differences in cultural habits might also increase the salience of categories and thereby strengthen cognitive biases that were discussed in the section on social identity. Especially differences in dress, such as wearing a veil can work as *discriminating signals*, symbolising membership in a social category and commitment to certain norms. By signalling commitment to norms and trustworthiness, they can help to overcome collective action dilemmas (Diekmann, 2007), but they can also have the opposite effect by aggravating the perception of difference (e.g. Dixon et al., 2002). Hence ethnic dresses or other lifestyles can cause people to perceive each other as different in attitudes, values, or norms and thus lead to suspicion and lower amounts of interaction and trust. Following this line of thought, Soroka et al. (2005) investigate the proportion of visible minorities in neighbourhoods. Unfortunately, they do not provide a comparison with non-visible ethnic fractionalisation.

Open Questions

Having considered all three aspects of ethnicity and how their fractionalisation relates to social cohesion, we have seen a vast amount of evidence along with many explanations. Yet, some topics remain untackled. This section is devoted to three of these topics.

Types of Ethnic Fractionalisation Within the discussion of different explanations, I already mentioned that some of these imply certain types of ethnic fractionalisation to be critical. For example, Banerjee and Pande (2007) highlight ethnic polarisation as problematic, because ethnic voting causes corruption only when party can win elections by relying solely on their ethnically defined electorate. In highly diverse settings, ethnic electorates cannot form majorities by definition, however. What types of ethnic composition do exist?

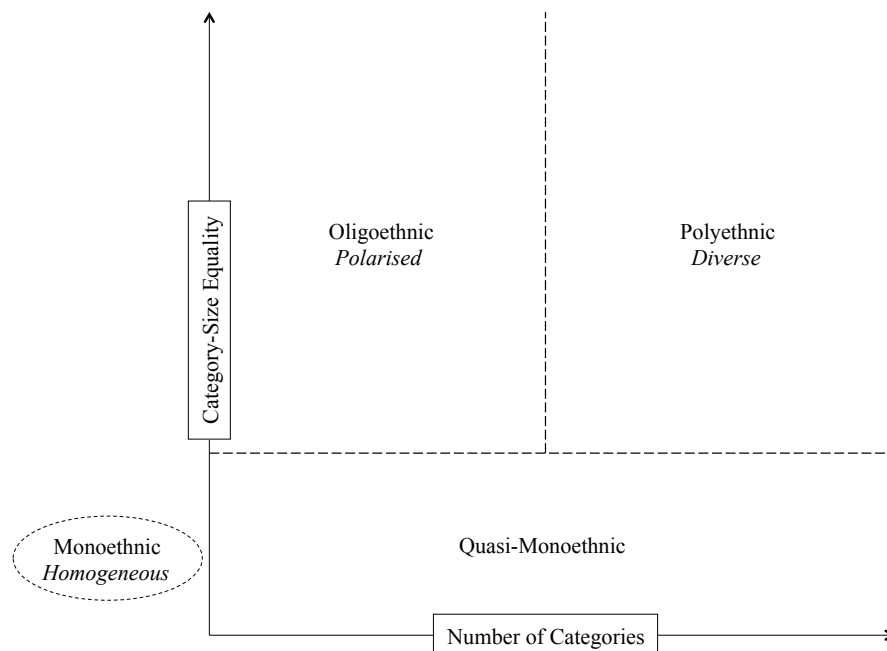
I propose that we can think about ethnic compositions in parallel to classical economic conceptualisations of market compositions. In fact, the index of ethno-linguistic fractionalisation (Hirschman, 1964), which is used in many studies, was developed by Hirschman and Herfindahl respectively as a measure of market composition. Theoretically, two dimensions are of importance. The first dimension is the number of groups and the second dimension concerns their relative sizes.

These two dimensions result in four ideal-types of composition, which are visualised in Figure 2.1. Parallel to orthodox classifications of markets, we can think of the following types of ethnic compositions:

- *Monoethnic or Homogeneous* are situations, in which there is only one ethnicity. Such situations hardly exist, at least on the level of countries or sub-national regions, which is why it is situated outside of the space of compositions. However, this ideal-type derives its importance from its function as a reference point at one end of probably all fractionalisation indices.
- *Quasi-monoethnic* are situations in which there is one majority that dominates the composition. The concrete compositions can differ in the degree to which the composition among the minorities equals one of the four categories. The situation of European countries is generally a quasi-monoethnic one, with a couple of minority migrant groups and in some cases also some national minorities, such as Basques. In contrast to the other compositions, there is no adjective, such as polarised or diverse that would describe such a composition, which shows its neglected status in the debate.
- *Oligoethnic or Polarised* are compositions in which rather equally powerful ethnicities co-exist. Such a situation is for the time being rather impossible for European countries, might however be a good description for some neighbourhoods in cities such as London, Paris or Rotterdam.
- *Polyethnic or Diverse* compositions are those where the number of ethnicities of an oligoethnic compositions becomes very large and the relative sizes more equal.

Note that the distinction between the four categories is not analytical, meaning there is no clear-cut criterion for when a quasi-monoethnic composition becomes oligoethnic, or the latter polyethnic. This is, however not crucial, since most research is conducted with continuous indices. The classification is important to clarify the ideal-typical situations that different theoretical approaches consider to be harmful or not for social cohesion. Competition and group threat theories would consider oligoethnic situations to be especially problematic, because competitors of equal strength are more threatening than small minorities. Network approaches in contrast would consider the latter to show the least dense networks and hence the least potential to sanction freeriders. In-group favouritism should work under both polyethnic and oligoethnic compositions. However, since feelings of group threat are expected to increase the tendency for in-group favouritism, oligoethnic compositions should be more harmful. For cultural explanations, the polyethnic composition would be the most challenging one, since in such situations the amount

Figure 2.1: Types of Ethnic Fractionalisation



of world-views and norms as well as ways to produce and share meaning is largest and might even increase exponentially with the number of groups, since each group has to be able to interact and share values with all others to reach the level of a monoethnic situation.

In conclusion, even though most theoretical approaches discussed so far can be integrated with one another, they make rather different assumptions on the type of ethnic fractionalisation that would be most harmful. However, most studies do not discuss these differences and rely on the percentage of minorities or the ethnic fractionalisation index without further reflection.

Residential Segregation More recently, some scholars have started to consider ethnic segregation as a cause of declining social cohesion and developed two theoretical approaches. Uslaner (2011, 2010) argues that ethnic fractionalisation and segregation are rival explanations for declining levels of social cohesion: “Low levels of trust are shaped by residential segregation, not diversity *per se*—and the two are not the same phenomenon” (Uslaner, 2011, p. 223, italics in original), Alesina and Zhuravskaya (2011) as well as Ferrara and Mele (2006) by contrast suggest that fractionalisation and segregation have to be thought in conjuncture.

Uslaner argues that fractionalisation and segregation are different phenomena, by showing them to correlate below .3 (Uslaner, 2011, p. 230) and providing evid-

ence that once segregation is taken into account, fractionalisation does not show any systematic relation to measures of social cohesion. What Uslander seems to overlook is that if one sees fractionalisation and segregation as rival, one confuses two levels of analysis, because strong segregation on the city level means homogeneity on the neighbourhood level.

In contrast, Alesina and Zhuravskaya (2011), Biggs and Knauss (2011) as well as Ferrara and Mele (2006) suggest that only if the two-level interplay between fractionalisation and its spatial distribution is recognised can one understand the importance of segregation, because a city of diverse but segregated population might have low levels of city-wide social cohesion, but high levels of neighbourhood cohesion. For a higher level of analysis than cities, Alesina and Zhuravskaya argue that high levels of both fractionalisation and segregation “would imply a negative correlation of segregation with quality of government at the national level and a positive correlation of segregation with quality of government at the local level since with more segregation localities are more uniform” (Alesina and Zhuravskaya, 2008, p. 6). Coherent with this argument, Ferrara and Mele (2006) show that racial segregation in the US is associated with higher levels of public school expenditure (which depends on local taxes) and lower levels of private schooling, but larger inequality of spending across schools districts. The homogeneity of the school district causes parents to send their children to the public school rather than a private one and makes them willing to support the education of their children by voting for higher educational expenditures. In diverse communities, parents bail out of public education and hence do not support it. Studying segregation hence supports earlier findings on ethnic divisions, but shows the trade-offs between homogeneity and fractionalisation more clearly. Further suggestive support comes from Dinesen and Sønderskov (2011) according to whom only the fractionalisation of regions with a radius of less than 300 meters has any negative impact on levels of trust.

Yet, this is only one side of the relation between fractionalisation and segregation, namely that which emphasises the potential lower-level benefits of segregation. The other side of the relation suggests that because space and ethnicity are not cross-cutting, a segregated fractionalized context fares worse than an integrated diverse city, where people of different ethnicity are used to interact with one another on a daily basis. In his study on right-wing party support, Rydgren and Ruth (2011) call this the *halo effect*; living next to (rather than in) neighbourhoods with many immigrants causes threat. Alesina and Zhuravskaya (2011) provide evidence for this argument, by showing that ethnically diverse and segregated countries fare worse than ethnically diverse but integrated countries on a range of indicators of the quality of government. Biggs and Knauss (2011) show that the same pattern holds for the likelihood to be a member of the British

National Party.

Policy Effects A prime interest is of course to study policy effects that relate to ethnically divided contexts and their challenges. Are there any political systems such as federalism, or policies such as multiculturalism, that were designed to accommodate diverse populations, which indeed attenuate the effects of ethnic divisions? Unfortunately, there are only few empirical studies that provide insights. Bahry et al. (2005) show that trust in institutions fosters inter-ethnic trust, but this does not answer which institutions are seen as trustworthy.

A couple of studies investigate *the role of democracy* in the relation between fractionalisation and social cohesion. Alesina and Zhuravskaya (2011) provide evidence that the negative impact of ethnic segregation on government quality is stronger in democracies. They explain this finding by showing how ethnic segregation is a strong determinant of the existence of ethnic parties, which suggests that ethnic segregation fosters ethnic voting. The problems associated with ethnic voting, which is a phenomenon of democracies by definition, are shown by Banerjee and Pande (2007). If parties can rely on an ethnically defined electorate they feel no pressure to govern well, which results in increased corruption. Anderson and Paskeviciute (2006) are also interested in the importance of democracy and show heterogeneity to have weaker effects in established democracies as compared to weak democracies. Unfortunately, the authors do not provide any theoretical reason for their finding, but maybe there are fewer ethnic parties in well-established democracies such as England, USA, Switzerland or France.

Another set of studies, is concerned with *minority rights, multiculturalism and federalism*. Kesler and Bloemraad (2010) provide evidence according to which the relation between social cohesion and ethnic fractionalisation is moderated by multicultural policies and income inequality. Rather similarly, Charron (2009) argues for the positive moderating role of ethno-federalism and according to her empirical results, federalism shows its merits especially or even exclusively, when there is any fractionalisation to begin with. Some further studies also investigate policy effects, but their specification strategy only allows for the estimation of policy effects that are additive to any fractionalisation impact. Along these lines Crepaz (2006), compares countries and reports a positive effect of multicultural policies on generalised trust. (for further single-country cases studies see articles in: Banting and Kymlicka, 2006). According to Hooghe (2007) generalised trust is stronger in countries with voting rights for foreigners, whereas naturalisation rates and multicultural policies seem to have no significant effect.

Miguel (2004) argues against the accommodation of fractionalisation via multiculturalism or federalism, and indeed argues for attenuating effects of policies that emphasise a common national identity. He compares the relation between ethnic

fractionalisation and the provision of public goods in Kenya and Tanzania. While Tanzania has a policy tradition that weakens ethnic cleavages, Kenya relied on traditionally established ethnic hierarchies in its polity. He shows fractionalisation to have a significant negative effect in Kenya on two of five measures of collective action. In Tanzania, diverse communities even show higher amounts of inter-ethnic trust and feel stronger spirits of cooperation - only membership in associations is negatively affected.

Many findings are concerned with local ethnic divisions in cities or neighbourhoods, so that there is also an interest in *local policies*. Studies concerned with the local level are very scarce. To explain the non-existent fractionalisation effect in Sierra Leone, Glennerster et al. (2010) highlight the importance of strong local chiefs who have the traditional authority to punish free-riders. Of course it is questionable how this finding, if it was robust, could be transferred to the European municipalities. More interesting are the findings of Alexander and Christia (2009) who add evidence on the local level of schools in support of a more integrative rather than multicultural approach. In their experiments in Bosnia, those pupils who visit an integrated school that is visited by both Bosnians and Croats, react less negatively to ethnic fractionalisation in public goods games and use the possibility to sanction more frequently. Directly concerned with the local level is the project report of Koopmans et al. (2011), which involves indicators of municipal integration policies in Germany, among these naturalisation rates, minority councils and the salience of migration topics to the party of the ruling mayor. Their results, which however only inform about additive effects, suggest the insignificance of these local policy measures.

Critical Appraisal and Own Approach

The literature has shown a large amount of scholarly research that relates to ethnic fractionalisation and social cohesion. Many of the approaches and findings, such as Selway's (2011) measures of cross-cuttingness, need yet to be applied to this particular context. Not everything can be done in this work, which is why I will now give a brief discussion of the approach taken in this work. Table 2.4 gives an overview of the proposed explanations of the ethnic fractionalisation effect. These five proposed explanations are sorted into three types, which parallels their discussion in this chapter as being related to identification with ethnic categories, network clustering along the lines of ethnic categories and ethno-cultural habits and practices. My approach that stems from the above elaborated reading of the literature is visualised in Figure 2.2 and emphasises the role of perceptions of ethnic fractionalisation in combination with the explanations proposed in the literature.

First, I have discussed cognitive biases, two of which derive from the mere cat-

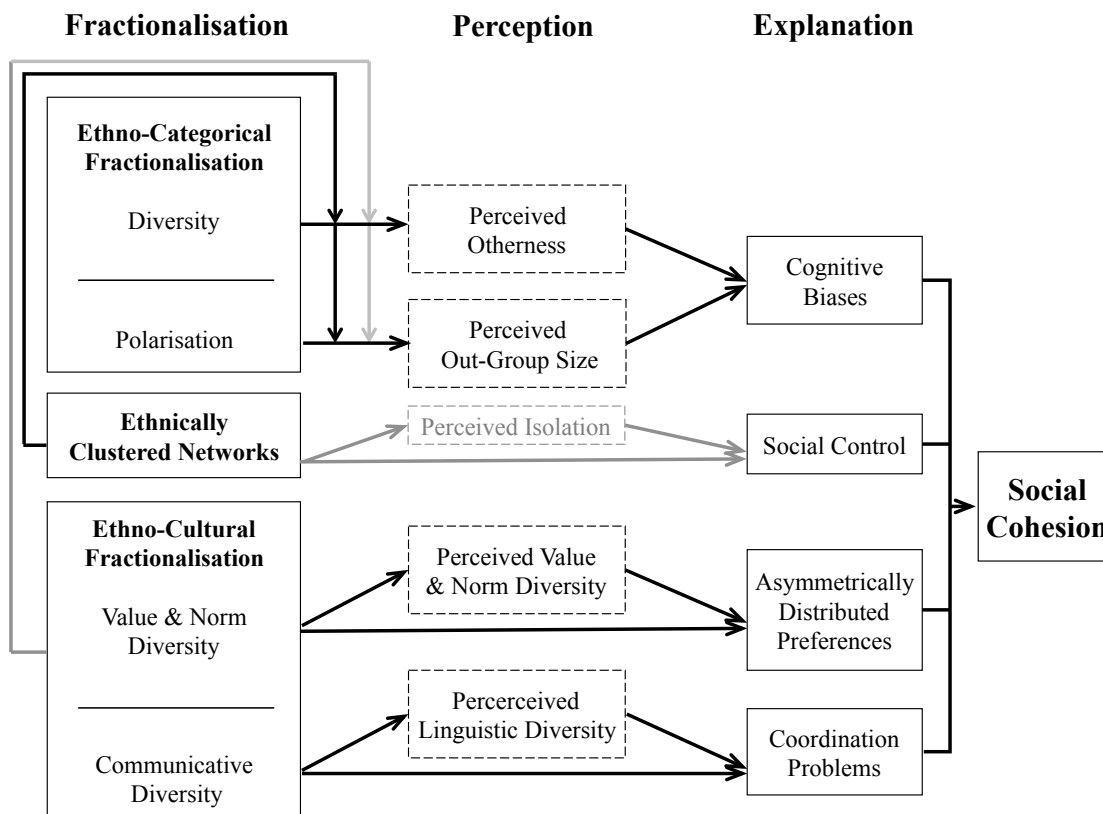
Table 2.4: Summary of Potential Explanations

Type	Mechanism	Explanatory Level	Harmful Composition
Cognitive Bias	Conflicting and Exclusive Loyalties	All	All
	In-Group Favouritism	All	All
	Cross-Cuttingness	All	All
	Competition and Group Threat	All	Oligoethnic (<i>Polarised</i>)
Social Control	Sanctioning and Reputation	Neighbourhood	Polyethnic (<i>Diverse</i>)
Culture	Asymmetric Distribution of Preferences	All	Polyethnic (<i>Diverse</i>)
	Coordination Problems	Best at Neighbourhood	Polyethnic (<i>Diverse</i>)

egorical distinction of us versus them. This dimension of ethnic fractionalisation is designated as *ethno-categorical fractionalisation* in Figure 2.2. Such categorisations might generate in-group favouritism for the need of a positive self-evaluation in relation to the others, or result in feelings of group threat. Alternatively, one might also argue for conflicting loyalties that stem from identification with multiple categories next to ethnic ones. I will, however, not consider this argument, because it is a hypothesis on a composition effect and seems to be mostly relevant for minorities and not the population at large. As can also be seen from Figure 2.2, I argue that cognitive biases only work through, i.e. are fully mediated, by perceptions of otherness and relative out-group size. The former should cause in-group favouritism, which is a function of seeing others as being different from oneself, and the latter feelings of group threat, because threat arises when out-groups become threateningly powerful. While the fundamental argument for the importance of perceptions is laid out in Chapter 5, I here want to emphasise that by definition, any cognitive bias that results from distinctions of us versus them can only work given that people do perceive such distinctions in the first place. In turn this also means, if people do perceive others to be of different ethnic background, even if it is not reflected in any observable measure of ethnic fractionalisation, it may cause cognitive biases. This follows from the Thomas theorem — “If men define situations as real, they are real in their consequences” (Thomas and Thomas, 1928, p. 572) — which suggests that it is exactly those aspects of ethno-categorical fractionalisation that are actually perceived by actors that have an impact on their attitudes and actions. Cognitive biases are theoretically appealing as explanations, because they can account for the findings on all levels and can be integrated to a common approach, by highlighting that in-group favouritism should be strengthened by feelings of group threat. Such an integrated view suggests that cognitive biases should increase, as we go from quasi-monoethnic,

to polyethnic to oligoethnic compositions, even though this moderation is not explicitly visualised in Figure 2.2. Cross-cuttingness as an attenuator of cognitive biases will be discussed below, because it can well be integrated with the discussion of ethnically clustered networks.

Figure 2.2: Theoretical Approach



Secondly, I have discussed problems to exert social control that may have their origin in people tending to form networks along ethnic lines. Such *ethnically clustered networks*, as they are called in Figure 2.2, result in overall low network densities and hence reduced capabilities to sanction free-riders or to diffuse information on the trustworthiness of others. This may work through perceptions, as when people perceive their neighbourhood to be characterised by anonymity and social isolation and refrain from social engagement in the belief that others are impossible to mobilise for collective endeavours. But even in cases where people perceive their neighbours to be well socially embedded in general, diffusion of knowledge and sanctioning potentials may be restrained if this is actually not the case. For this reason, Figure 2.2 shows both a direct and indirect path, i.e.

mediation by perceptions of social-isolation. Both paths are held in grey, because I am not able to test these within this work. The estimation of network characteristics such as density, clustering or structural cohesion depends on the sampling of all nodes in a given network and cannot be implemented with randomly sampled respondents in a region, so that I was not able to build an index of ethnically clustered networks.

For this reason and because the explanation itself can only account for the findings on the neighbourhood level where people have face-to-face contact, I decided to rather focus on the moderating role of ego-networks, which is visualised in Figure 2.2 by the path that runs from ethnically clustered networks to the paths connecting ethno-categorical fractionalisation to perceptions of otherness and out-group size. On the one hand contacts might reduce cognitive biases if they encompass inter-ethnic ties, but might strengthen levels of identification and thereby cognitive biases if they are ethnically segregated, like a catnet. In this regard, it is also of interest to discuss the importance of cross-cuttingness of ethnicity with other categories. While the cross-cuttingness of ethnicity and many dimensions like socio-economic status or religion might be of importance, it is reasonable to reason to conceptually link both personal contact and cross-cuttingness by recognising the role of residential segregation as discussed above. Ethnic residential segregation is in principle the absence of cross-cuttingness between ethnic background and space and research suggests that it goes along with an ethnic segregation of interaction, i.e. networks (e.g. Vervoort, 2011). In other words, the cross-cuttingness of ethnicity and space might be of relevance for it encourages the establishment of personal contacts, which attenuates the impact of ethnic fractionalisation. This argument parallels the work of Schlueter and Scheepers (2010) and Schlueter and Wagner (2008), which shows larger shares of migrants to have both a prejudice reducing effect via the establishment of inter-ethnic contacts, as well as a prejudice increasing effect via feelings of threat.

The final two explanations, which I have discussed, relate to the ethno-cultural dimension of ethnicity. *Ethno-cultural fractionalisation* may mean that the different norms and values people hold result in various preferences on community life should look like, resulting in a challenge to compromise on goals. Ethno-cultural fractionalisation may also be seen as a diversity in ways to communicate so that people end up having difficulties to understand each other. The first, namely asymmetrically distributed preferences can account for findings on all levels, but the latter are probably best suited for the neighbourhood level, because here people engage in face-to face interaction. Again I assume both paths to be mediated by perceptions and to work directly. As in the case of perceived social-isolation, mere perceptions of value and norm diversity or linguistic diversity might cause people to question the possibility of collective action with these others. At the same time

communication problems of diverging preferences can cause problems to cooperate and to engage socially, even if people do not perceive them.

Finally and also similar to clustered ethnic networks, cultural differences can moderate cognitive biases by increasing feelings of otherness or out-group size via signalling effects. This is explicated by the grey path that connects with the moderating path of ethnically clustered networks. However, as the grey colouring denotes, I will not empirically investigate this theoretical implication in this work.

This theoretical framework aims to achieve three goals. First, it integrates different approaches of the literature beyond a simple additive enumeration. By embedding the different explanations within a clearly defined concept of ethnicity as well as highlighting signalling effects, cross-cuttingness and other elaborated parts of the theoretical framework, I connect the different approaches with one another and make clear that the arguments can be made theoretically cohesive. Second, and next to giving answers to the question why ethnic fractionalisation might drive down social cohesion, it provides possible answers to the question why previous findings on the question have been so heterogeneous. Perceptions that cannot be directly inferred from statistical measures of ethnic fractionalisation as well as the moderating roles of ethnic residential segregation, personal inter-ethnic contacts, and signalling effects may account for the inconclusiveness of previous research. Third, the approach thereby also investigates possible solutions to the challenges of ethnic fractionalisation, by investigating the moderating role of inter-ethnic contacts and further of conditions under which more favourable perceptions of ethnic neighbourhoods emerge. To this end, two empirical chapters develop the theoretical framework further and analyse conditions and determinants that lead to the establishment of inter-ethnic neighbourhood acquaintanceships and perceptions of ethnic minorities as neighbourhood problem groups.