

'Hunkering Down' in Multi-Ethnic Neighbourhoods? The Effects of Ethnic Diversity on Dimensions of Social Cohesion

Mérove Gijsberts^{1,*}, Tom van der Meer² and Jaco Dagevos³

Abstract: Putnam (2007) claims that in ethnically diverse neighbourhoods, residents of all ethnic groups tend to 'hunker down'. Solidarity and trust are lower, mutual help and cooperation rarer, and friends fewer. Various studies in the United States found a clear correlation between diversity and cohesion, and also for many different dimensions of social cohesion. Whether this finding also holds in other (European) settings is the subject of hot and unresolved debate. Specifically, this article addresses the question of whether living in an ethnically diverse setting has negative consequences for social cohesion in the Netherlands as well. Previous studies on the Netherlands remained inconclusive. We examine how this lack of consensus can be explained. To further the debate, this article pulls apart various contexts and various dimensions of social cohesion. This article examines the relationship between ethnic diversity (in socio-graphically defined neighbourhoods) and four dimensions of social cohesion (trust, informal help, voluntary work, and neighbourhood contacts) for the 50 largest cities in the Netherlands. We conclude that the Putnam hypothesis holds only to a limited extent in the Dutch context. The only aspect on which ethnic diversity has a negative effect is the degree of contact in the neighbourhood.

Introduction

In his article, *E pluribus Unum* ('Out of many, one'), Putnam (2007) argues that ethnic diversity in the immediate residential setting leads to declining solidarity and reduced levels of trust. People living in ethnically diverse neighbourhoods are more inclined to turn inwards, a phenomenon that Putnam describes as 'hunkering down'. Trust declines, mutual help becomes rarer, and friendships fewer.

The idea that growing ethnic and cultural diversity poses a threat to social connections in society is greeted with some alarm. Sociologists set about replicating Putnam's study, while policymakers used it as an argument for community building in ethnically diverse neighbourhoods. Putnam was by no means the first to claim this relationship. In the United States, in particular, it has been observed many times that social cohesion

is lower in neighbourhoods with high ethnic diversity: residents have less trust in others and formal and informal networks are weaker (e.g. Alesina and La Ferrara, 2000; Costa and Kahn, 2003). However, in Western Europe findings are mixed at best (e.g. Gustavsson and Johrdahl, 2008; Letki, 2008).

This article investigates the influence of ethnic diversity in the immediate residential setting on social cohesion in the Netherlands. The diversity thesis has recently been tested in the Netherlands (most notably by Lancee and Dronkers, 2008; Tolsma, Van der Meer and Gesthuizen, 2009; Vervoort, Flap and Dagevos, 2010), which has an abundance of both individual and contextual data. Surprisingly, however, no consensus emerged on the validity of Putnam's hypothesis in the Netherlands. Lancee and Dronkers (2008) claim support for the diversity thesis, Tolsma, Van der Meer, and Gesthuizen (2009) find harmful effects of ethnic

¹Mérove Gijsberts, The Netherlands Institute for Social Research/SCP, Postbus 16164, 2500 BD The Hague, The Netherlands; ²Tom van der Meer, Institute for Immigration and Ethnic Studies (IMES), University of Amsterdam, The Hague, The Netherlands; ³Jaco Dagevos, The Netherlands Institute for Social Research/SCP, The Hague, The Netherlands.

*Corresponding author. Tel: +31703407801; Fax: +31703407044; Email: m.gijsberts@scp.nl

diversity on some, but not all measures of social cohesion, while Vervoort, Flap and Dagevos (2010) argue that not diversity as such but ethnic concentration affects ethnic minorities' social contacts: it stimulates their contact with co-ethnics and harms their contacts with natives. The question thus remains whether and to what extent ethnic diversity is harmful to social cohesion.

Our article contributes in two ways. First, it offers a more crucial test of the diversity thesis in various ways. (i) We critically review the concepts of 'ethnic diversity' (diversity or concentration), 'neighbourhoods' (communities defined by administrative or socio-geographical boundaries), and 'social cohesion' (attitudes versus behaviour; general versus outgroup), both theoretically and methodologically. (ii) We take various individual and contextual control factors into account, most specifically socio-economic disadvantage. In Europe, some studies concluded that diversity effects disappeared once socio-economic disadvantage was taken into account (Letki, 2008; Tolsma, Van der Meer and Gesthuizen, 2009), although others had not found similar spurious effects (Lancee and Dronkers, 2008). (iii) We use high-quality data that were collected specifically to assess social cohesion amongst native Dutch and the four largest non-western ethnic minority groups in the Netherlands.

Second, we test to what extent differences in conceptualization and operationalization explain the differential outcomes in the Dutch (and Western European) studies. We test whether differences in neighbourhood delineation, differences in aspects of social cohesion, and differential effects across social groups matter for the outcomes of our analysis. In turn, we relate these findings to the ongoing debate in the literature to eliminate possible explanations for diverging conclusions.

Moreover, this issue has equally important policy implications. Policy focused on creating mixed neighbourhoods is in vogue, based on the premise that mixing majority and minority groups brings many benefits. Mixing supposedly prevents neighbourhoods from stigmatization, and enables disadvantaged residents to improve their prospects: social networks were expected to arise in mixed neighbourhoods in which socially 'stronger' residents can help 'weaker' residents to improve themselves. The assumption underlying research and policy on this issue was that ethnic concentration (a high proportion of non-Western ethnic minorities in a neighbourhood) was bad for social cohesion. However, according to Putnam's thesis it is the presence of many different groups that causes the problem. Is mono-ethnicity (e.g. lots of Moroccans in a neighbourhood) better for intra-ethnic—and even for overall levels

of—social cohesion than ethnic diversity? If Putnam's findings hold, policy aimed at mixed neighbourhoods with a view to promoting cohesion could actually be having the reverse effect. Hence, we should first understand why diversity may be harmful to social cohesion.

The Ethnic Diversity Effect

Ethnic Composition or Ethnic Diversity

It is important to separate the question of ethnic diversity effects from a closely related issue. Earlier research has shown that social trust and social contacts are lower than average among ethnic minorities, especially those of the first generation. This is in part due to socio-economic factors such as income and command of the host country language, and may also be influenced by cultural differences (cf. Martinovic, Van Tubergen and Maas, 2009). The lower social cohesion among ethnic minorities means that the level of social cohesion in neighbourhoods with lots of ethnic minority residents will also be relatively low. This *compositional effect* is, however, not the focus of this article. Rather, the hypothesis investigated here is that diversity is harmful for social cohesion in and between all social groups. According to this hypothesis, it is better for both indigenous and immigrant residents to live in a homogenous neighbourhood than in an ethnically diverse neighbourhood. In this article we use the term *diversity effect* (or context effect) for this.

Theoretical Mechanisms

Broadly speaking, four main theoretical viewpoints emerge to explain the effects of diversity on cohesion. One theory that features widely in the literature to explain these effects is the *homogeneity theory* (cf. McPherson, Smith-Lovin and Cook, 2001). What this theory boils down to is that people prefer to interact with those who resemble them. Based on this supposition, people living in settings which are heterogeneous (ethnically or otherwise) are expected to have less frequent contacts with others.

Another theory that is used to explain diversity effects is the *conflict theory* or *ethnic competition theory* (e.g. Quillian, 1995). It claims that hostility between groups increases with the number of members of the 'outgroup' living in the neighbourhood: the closer and more numerous they are, the more people withdraw into their own group and the more negative they become in their views of the other group. The presumed mechanism underlying this is that people feel threatened by the

presence of different ethnic groups and experience 'ethnic competition'.

Diametrically opposed to this theory is the *contact hypothesis* (e.g. Pettigrew and Tropp, 2006), which posits that mutual contact (if certain conditions are met) leads to a positive attitude towards the 'outgroup'. Reasoning from the contact hypothesis, diversity will have a positive effect, because it increases the solidarity and tolerance between groups. People living in heterogeneous neighbourhoods have indeed been found to have more positive attitudes to the outgroup and more trust in each other (Oliver and Wong, 2003).

The fourth theory—*social control theory* (Sampson, Raudenbusch and Earls, 1997)—focuses on the macro-level (the community). It claims that diversity causes mutual distrust because informal social control weakens due to a lack of shared social norms. The weakening of norms is most likely to happen in disadvantaged neighbourhoods with a high proportion of ethnic minorities and poor, lone-parent families. The combination of scarce resources and weak social control generates a threatening environment that is characterized by urban decay and crime. As people feel abandoned, it is safest to distrust everyone on such 'islands of deprivation' (Ross, Mirowsky and Pribesh, 2001).

Note, however, that ethnic diversity often goes hand in hand with socio-economic disadvantage: ethnically diverse neighbourhoods also tend to be low-income neighbourhoods (Letki, 2008). Socio-economic disadvantage is an obstacle for social cohesion: when fellow community members have fewer individual and collective resources, they are less likely to trust others or to participate with others (Ross, Mirowsky and Pribesh, 2001). Therefore, it is very important to take socio-economic disadvantage into account as a determinant of social cohesion, if only to ensure a more crucial test of the diversity effect.

Previous Empirical Findings

Research Findings

Does ethnic diversity lead to less social capital? Putnam claims that the effect of ethnic diversity is universal, applying for both attitudes and behaviour, for both 'bonding' (i.e. in groups of similar others) and 'bridging' (i.e. in groups of dissimilar others) social capital, and for both public and private contacts. Other American research also suggests that ethnic diversity in the neighbourhood has a negative effect on social capital. Alesina and La Ferrara (2000, 2002) show that ethnic diversity negatively affects trust and participation in social activities. Costa and Kahn (2003) conclude that

the American decline in volunteering between 1950 and 1990 was due to rising ethnic diversity and inequality.

Putnam's thesis has also been supported outside the United States. In Australia, both local and general trust is lower in ethnically and linguistically heterogeneous neighbourhoods (Leigh, 2006). Evidence in the UK—where rising immigration and growing social unrest have pushed the theme to the heart of the public debate—the picture appears to be more mixed (Li, Pickles and Savage, 2005; Letki, 2008). Letki (2008) performed the most crucial test, concluding that there is little empirical evidence to support the claim that ethnic diversity undermines cohesion; the main problem is poverty. She does find in her UK research that ethnic diversity has a direct negative effect on trust and informal help, but she interprets this largely as a pseudo-effect. Letki accordingly argues that the attention of the British government should be focused on combating economic disadvantage rather than on stimulating interethnic contacts.

Studies have also been carried out in the United States, which suggest that economic factors are more important than ethnic issues. Ross, Mirowsky and Pribesh (2001) found that the effect of ethnic diversity on trust was explained away by poverty (and the proportion of single-parent families) in a neighbourhood (cf. Li, Pickles and Savage, 2005). Their finding contradicts Alesina and La Ferrara (2002) who conclude for the United States that ethnic diversity is more important in explaining trust than economic inequality. Putnam (2007) asserts that the effect of economic inequality is as strong as the effect of ethnic diversity.

Finally, cross-national comparisons also tend to reject the Putnam thesis (cf. Gesthuizen, Van der Meer and Scheepers, 2008; Hooghe *et al.*, 2009), but they assessed diversity as a national rather than a local characteristic.

Findings in the Netherlands

More recently, the Putnam hypothesis was also picked up in the Netherlands (Völker, Flap and Lindenberg, 2007; Lancee and Dronkers, 2008; Tolsma, Van der Meer and Gesthuizen, 2009; Vervoort, Flap and Dagevos, 2010). The different studies have not however produced uniform conclusions. Lancee and Dronkers (2008) find partial support for Putnam's idea: in ethnically mixed neighbourhoods, mutual contacts decline among both the immigrant and indigenous populations. This effect remains after controlling for economic disadvantage in the neighbourhood. Whereas Lancee and Dronkers argue that ethnic diversity is harmful for trust in neighbours and the neighbourhood, Tolsma, Van der Meer and Gesthuizen (2009) endorse this conclusion only for specific aspects. They consider ethnic diversity to be

harmful for voluntary work and partly for the number of contacts with neighbours, but they find no effect or even a positive effect on social trust and ethnic distance. Vervoort, Flap and Dagevos (2010) focus exclusively on ethnic minorities' social contacts, and find ethnic diversity to be harmful to their contacts with natives, while it stimulates contacts with co-ethnics. This is best explained not by diversity effects but by effects of ethnic concentration: the percentage of alters of one's own ethnicity in the neighbourhood.

Dutch studies on interethnic contact and outgroup perceptions are much more equivocal (cf. Gijsberts and Dagevos, 2007). They consistently report that interethnic contact depends on opportunities for contact. Hence, contact of ethnic minority with indigenous populations is lower in neighbourhoods with higher levels of ethnic minority concentrations. For indigenous residents, by contrast, mixed neighbourhoods promote inter-ethnic contacts.

General Limitations of Earlier Research

The picture that emerges from earlier research is ambiguous. Putnam's hypothesis is confirmed as often as it is rejected, and no consensus is emerging between the different researchers. To cut to the heart of the debate and perform a more crucial test, we need to face several conceptual and methodological problems that have plagued previous empirical studies. To some extent, these limitations also hold for this study, but this makes it no less relevant to acknowledge them.

First and foremost, previous research has devoted little attention to problems of causality and self-selection. Even when it transpires that people in heterogeneous neighbourhoods have less trust, the chief mechanism could be a selection process: people who move into these neighbourhoods might already be less trustful (Ross, Mirowsky and Pribesh, 2001; Leigh, 2006). Vice versa, if people in heterogeneous neighbourhoods display more (inter-ethnic) trust, this may be because those who are adverse to heterogeneity have moved out (Tolsma, Van der Meer and Gesthuizen, 2009).

Second, there is a lack of conceptual clarity on the use of the concepts of social capital, trust, and participation in earlier research. Often a multitude of dependent variables is studied which supposedly say something about social cohesion. This makes it difficult to compare these empirical studies with each other. The lack of conceptual clarity—a well described and often criticized problem in social capital research—is exacerbated by the use of the same terminology to describe different phenomena. At the very least, this issue calls for

specification of the indicators, both in our own study and in a review of previous ones.

Third, earlier research does not always make (adequate) allowance for the socio-economic disadvantage of a neighbourhood (Letki, 2008). And if both phenomena are studied simultaneously, previous research has devoted little attention to problems of multi-collinearity (but see Tolsma, Van der Meer and Gesthuizen, 2009). As there is a strong correlation between socio-economic disadvantage and ethnic diversity; the question is whether both can be included in an explanatory model (see below).

Specific Issues with the Dutch Studies

In addition to these general limitations, there are several specific issues that might explain why the previous Dutch studies reach different conclusions. Although all studies follow a similar multi-level setup, there are also notable differences. First, Tolsma, Van der Meer and Gesthuizen (2009) use the official administrative zip-codes to define neighbourhoods, while Vervoort, Flap and Dagevos (2010) and Lancee and Dronkers (2008) use the neighbourhood classification that focuses on socio-geographical boundaries that supposedly line up more neatly with citizens' delineation of their neighbourhood. Neighbourhood delineation is likely to affect the outcomes: citizens are more likely to be affected by local communities that have more natural physical, social, or cultural boundaries. Second, some studies focus on ethnic diversity (Lancee and Dronkers, 2008; Tolsma, Van der Meer and Gesthuizen, 2009), whereas Vervoort, Flap and Dagevos (2010) and Gijsberts and Dagevos (2007) also emphasize ethnic concentration. It is unclear whether it matters for the findings if the study looks at the ethnic diversity in a neighbourhood or the degree of ethnic concentration. Third, some studies analyse a random national sample of citizens (Tolsma, Van der Meer and Gesthuizen, 2009; Vervoort, Flap and Dagevos, 2010), while Lancee and Dronkers (2008) study a sample of citizens in 13 municipalities of the Netherlands. Fourth, Vervoort, Flap and Dagevos (2010) exclusively focus on social cohesion amongst ethnic minority groups, whereas Tolsma, Van der Meer and Gesthuizen (2009) and Lancee and Dronkers (2008) also include the ethnic majority, i.e. the native Dutch, and subsequently test for differential effects of ethnic diversity between these groups. It can theoretically be argued that the effect of diversity on social cohesion is positive for ethnic minorities but negative for the indigenous population (the *multi-cultural neighbourhood hypothesis*). Finally, the different studies focus on different aspects of social

cohesion. Although Putnam (2007) claims that ethnic diversity is harmful to nearly *all* modes of social capital, which need not be the case empirically. The question is now which of these five differences may explain the different conclusions.

Our study primarily offers a crucial test of the diversity effect in Dutch neighbourhoods. However, we additionally set out to investigate which of these five differences between the previous Dutch studies explain their differential findings. Therefore, we test whether the distinction between zip codes and socio-graphically defined neighbourhoods matters substantially. Additionally, we assess whether there are differences between the effects of ethnic concentration and of ethnic diversity. Furthermore, we distinguish between diversity effects in the four major cities compared to other large cities. We also investigate whether diversity has the same effect on different ethnic groups. Finally, we distinguish between various aspects of social cohesion to shed light on the lack of conceptual clarity in earlier research.

Data and Methods

To study the influence of ethnic diversity on social cohesion, we need data both on individuals (their attitudes and behaviours) and on the contexts in which they live. We obtained data at individual level from the 'Living Conditions of Urban Ethnic Minorities' database (LAS), gathered by the Netherlands Institute for Social Research/SCP between November 2004 and May 2005. The sample was drawn from the population registers in the 50 largest cities in the Netherlands and was held among random samples of citizens from five ethnic groups—the four largest ethnic minority groups in the Netherlands (Turks, Moroccans, Surinamese, and Antilleans) and a native Dutch comparison group. If the person or one or both of the respondent's parents are born abroad, one is considered to belong to an ethnic minority group. Minority groups are overrepresented in the larger cities in the Netherlands: 75 to 80 per cent of these ethnic groups are living in these 50 cities. Participants were interviewed face-to-face (CAPI). Only those participants who were foreign born and not fluent in Dutch were interviewed in their native languages by bilingual interviewers. To correct for possible selectivity in the response rates, the data were weighted using demographical characteristics (age, sex, marital status, presence of children, and migration generation). Weights are generally low, implying that respondents hardly differ from the population on these characteristics. The unweighted LAS database covers 4,134 respondents living in around 1,250 neighbourhoods in 50 cities. We linked characteristics of the

neighbourhoods and the cities to this database of individualized data, drawing on data produced by *Statistics Netherlands/CBS*. These contextual data relate to the year 2004 and are available for all neighbourhoods in which the respondents in the LAS survey live.

First, we need to define neighbourhoods. In this field of research, practical considerations have often dictated that administrative areas (zip codes) be used to define a neighbourhood. In this article, we instead opt for the CBS neighbourhood classification, used by the cities and its inhabitants themselves to mark neighbourhoods. Since this classification matches the socio-geographical delineation of neighbourhoods more closely than the administrative classifications, it seems a more meaningful unit of analysis. In this classification system, neighbourhood boundaries represent marked differences in architectural styles and periods. Moreover, neighbourhoods are smaller units than administrative areas (there are approximately 10,000 neighbourhoods in the Netherlands, compared with some 4,000 zip codes). Hence, they are more likely to be regarded by residents as their own neighbourhood.

Our resulting database has a multi-level structure, with individuals being 'nested' in the neighbourhoods which in turn are nested in cities. To estimate the effects and standard errors of variables at the correct level of analysis, we used (OLS and logistic) multi-level analysis. The tests for significance were performed one sided.

Dependent Variables: Social Cohesion

Many different aspects of social cohesion are highlighted in the current diversity literature. Putnam (2007), for instance, looks among others at the effect of diversity on different dimensions of trust, participating in neighbourhood projects, giving to good causes, and doing voluntary work. Letki (2008) operationalizes social capital as trust, social contact, informal help, giving behaviour, and voluntary work. A distinction is often drawn between a cognitive and a behavioural component. Following this distinction, we look at perceptions (trust) and actual behaviour (contacts in the neighbourhood, doing voluntary work, and giving informal help to others).

The degree to which people trust each other (*generalized trust*) is studied in virtually all research into the relationship between diversity and social cohesion. Trust was measured with the internationally widely used—but also criticized—standard question with two response options: 'Do you feel that people can generally be trusted, or do you think you can't be too careful in dealing with people?'

Neighbourhood contacts were measured using two statements, each with five response categories (ranging from ‘agree completely’ to ‘disagree completely’): ‘I have a lot of contact with my direct neighbours’ and ‘I have a lot of contact with others who live in my neighbourhood’. In the multivariate analyses, these variables together formed a scale (Cronbach’s $\alpha = 0.71$).

Performing voluntary work is frequently studied as well, both as formal volunteering in associational life (e.g. Putnam, 2007) and as informal help provision (e.g. Li, Pickles and Savage, 2005). Voluntary work was measured using the question: ‘Do you do voluntary work, i.e. unpaid work for or organized by an institution or association?’. Respondents were able to answer ‘yes’ or ‘no’ to this question. Informal help was measured using the question: ‘How many hours per week on average do you currently spend giving unpaid help to sick, disabled, or needy relatives, friends, or neighbours?’. We dichotomized the answers to this question: anyone who answered more than nil hours was coded as a provider of informal help. Because giving informal help is not a relevant issue to everyone, we take account of the proximity of immediate family members in the multivariate analyses.

Independent Variable: Ethnic Diversity

CBS provides information on the relative proportions of seven ethnic groups in each neighbourhood: Turks, Moroccans, Surinamese, Antilleans, other non-Western ethnic minorities, Western ethnic minorities, and native Dutch. We used the Herfindahl index ($HI = \sum p_i^2$)—or rather its absolute inverse ($1 - HI$)—to measure ethnic diversity. This widely used index represents the probability that two randomly selected individuals will hail from different ethnic groups. The index ranges between 0 (no diversity) and 1 (full diversity). In the Netherlands, low levels of diversity always mean strong presence of native Dutch. The higher the index value, the more ethnic groups are present, and the less the neighbourhood is dominated by native Dutch.

The big drawback of the Herfindahl index is that it makes no distinction between the situation where a neighbourhood consists of, say, 90 per cent indigenous residents and 10 per cent Moroccans, and the reverse situation. This ‘colour-blindness’ is less relevant for the Netherlands, where virtually all neighbourhoods are dominated by one group, the indigenous citizens. In 2004, there were just two neighbourhoods (out of 10,000) where roughly half the population is Moroccan, two neighbourhoods where roughly half the population is Turkish, and one neighbourhood where the population is approximately 40 per cent Surinamese.

In addition to the Herfindahl index of seven ethnic groups (HI7), we constructed an index of three ethnic groups (HI3): indigenous (native Dutch) residents, non-Western ethnic minorities, and Western ethnic minorities. Because the detailed index contained a fair number of missing values in some neighbourhoods,¹ the HI3 index was used for the analyses at neighbourhood level. As the correlation between HI3 and HI7 is very high (above 0.9), we may assume that they measure the same.

Individual Level Control Variables

To rule out compositional effects, we controlled for a number of individual characteristics. Primarily ethnicity effects are a concern. Hence, we assessed respondents’ ethnic origin, distinguishing between five ethnic groups: native Dutch, Turks, Moroccans, Surinamese, and Antilleans. Additionally, we constructed a dummy variable to separate second-generation migrants (born in the Netherlands) from first-generation migrants and indigenous Dutch. Linguistic ability was calculated as the average score on two questions: ‘If you are holding a conversation in Dutch, do you always/often, sometimes or never have difficulty with the Dutch language?’ and ‘When reading newspapers, letters, or folders do you always/often, sometimes, or never have difficulty understanding the Dutch language?’.

Additionally, we controlled for gender, age, education level, family composition, occupation (activity and level), subjective health, and church/mosque attendance.²

Contextual Level Control Variables

In addition to a neighbourhood level, we also included the city level in the multivariate analyses. The ethnic diversity index was calculated for both levels, and the average income in the neighbourhood and city (average gross income per resident, divided by 1,000) was included as an indicator for the socio-economic disadvantage of the neighbourhood/city.

Since ethnically diverse neighbourhoods and cities also differ in other respects (e.g. residential mobility, crime rates, home ownership, etc.), we took various characteristics into account to assess the net effects of ethnic diversity and socio-economic disadvantage. As a control, we made allowance for the percentage of 0–15-year-olds and the percentage of over 65 years old in the neighbourhood. The population density of the neighbourhood was calculated as the number of residents per square kilometre. To examine whether there was an additional effect from living in one of the four largest cities in the Netherlands (Amsterdam, Rotterdam, The Hague, and

Utrecht), we included a dummy variable. Residential mobility in neighbourhoods was determined as the number of house moves per 1,000 residents. Crime was included as a city characteristic, based on the number of suspects per 1,000 inhabitants (for all offences combined). All contextual variables were produced by CBS.

Modelling Procedure

We view ethnic diversity in relation to socio-economic disadvantage in all models (using the non-weighted data set). This enables us to answer the question of whether we are concerned with ethnic differences, economic disadvantage or both together.

A risk in multivariate analysis is multi-collinearity: strong relationships between predictive variables can lead to incorrect conclusions if effects cancel each other out or reinforce each other. To test whether the correlation between the city and neighbourhood variables is problematic, we performed ‘perturbation analyses’ (Belsley, 1991). These analyses showed that the effects we found are stable and undistorted by multicollinearity. It proved possible to include ethnic diversity and socio-economic disadvantage in one model. It was, however, not possible to analyse ethnic diversity as both a neighbourhood and a municipality characteristic at the same time. We therefore solely focus on the diversity effect at the neighbourhood level.

Findings

Descriptive analyses show strong ethnicity effects. Ethnic minorities score lower than the indigenous Dutch on most indicators of social cohesion: they have less trust in others, do less voluntary work, and give less informal help (Table 1). An important exception here is contact in

the neighbourhood; both Turks and Moroccans engage in such contacts substantially more often than the other ethnic groups (presumably with members of their own ethnic group).

Turning to the multivariate results, both the degree of ethnic diversity and socio-economic disadvantage (measured as average income) seemingly affect the degree of social cohesion in the neighbourhood (see Table 2, model 1).³ In neighbourhoods where the average income is lower and ethnic diversity is higher, there is less trust and less voluntary work is performed. The average income in the neighbourhood has no effect on giving informal help. Ethnic diversity correlates negatively with contacts in the neighbourhood, while socio-economic disadvantage—counter to expectations—has a positive effect (the ‘cosy working-class neighbourhoods’).⁴

Yet these neighbourhood effects—and this is the key—generally disappear once we control for individual characteristics (see Models 2) and contextual characteristics (see Models 3). The socio-economic disadvantage effect of the neighbourhood is explained fully by individual characteristics. Most of the effects of ethnic diversity on social cohesion, too, are explained by the composition of the population, especially the ethnic composition. Social cohesion is lower in diverse neighbourhoods simply because more members of ethnic minorities live there, who on average trust others less and do less voluntary work. These are thus not genuine diversity effects, but rather compositional effects. Putnam’s hypothesis is thus not supported for trust, volunteering, and informal help. An important exception is the influence of ethnic diversity on neighbourhood contacts, which remains even after controlling for all manner of other characteristics. In line with the Putnam hypothesis, ethnic diversity has a negative effect on contacts with neighbours and other neighbourhood residents.

Table 1 Different dimensions of social cohesion by ethnic group

	Turks	Moroccans	Surinamese	Antilleans	Indigenous
Can most people generally be trusted (in percentages)					
Can be trusted	35	41	31	37	60
You can’t be too careful	65	59	69	63	40
Contacts in the neighbourhood (percentage who (strongly) agree)					
I have lots of contact with my immediate neighbours	64	63	48	46	51
I have lots of contact with other neighbourhood residents	51	52	37	36	40
Voluntary work and informal help (in percentages)					
Does voluntary work	10	9	10	11	25
Gives help for a least one hour	11	13	15	10	18
<i>n</i>	947	915	760	808	666

Table 2 Multilevel regression analysis of the effects of ethnic diversity and average income at neighbourhood level on indicators of social cohesion^a, model 1 uncontrolled, model 2 controlled for individual characteristics^b, model 3 controlled for individual, neighbourhood, and city characteristics^c

	Trust						Neighbourhood contacts					
	Model 1		Model 2		Model 3		Model 1		Model 2		Model 3	
Ethnic diversity in the neighbourhood	-0.96**	(0.34)	0.12	(0.37)	0.08	(0.40)	-0.35*	(0.16)	-0.46*	(0.18)	-0.39*	(0.19)
Average income in the neighbourhood	0.10**	(0.02)	0.04*	(0.02)	0.04	(0.03)	-0.03**	(0.01)	-0.00	(0.01)	0.00	(0.01)
	Voluntary work						Informal help					
	Model 1		Model 2		Model 3		Model 1		Model 2		Model 3	
Ethnic diversity in the neighbourhood	-1.62**	(0.43)	-0.32	(0.48)	-0.27	(0.52)	-0.33	(0.47)	0.04	(0.50)	0.14	(0.56)
Average income in the neighbourhood	0.09**	(0.02)	0.02	(0.03)	-0.01	(0.03)	0.04	(0.03)	0.02	(0.03)	0.01	(0.04)

Notes: Non-standardized coefficients; standard errors between brackets.

^aLogistic multilevel analyses were carried out for trust, voluntary work and informal help. Neighbourhood contacts were tested in linear multilevel models ($n_{ind} = 4,089$; $n_{neigh} = 1,250$; $n_{city} = 50$).

^bAll individual characteristics were included in this model (ethnic group, sex, age, generation, education level, family composition, activity and occupational level, command of the Dutch language, perceived health, church/mosque attendance). The analyses for informal help were additionally corrected for the frequency of contact with immediate family.

^cAll individual characteristics were included in this model together with the other neighbourhood characteristics (proportion of 0–15-year-olds, proportion of over 65 years olds, population density, residential mobility), and city characteristics (crime rates in the city and living in one of the four major cities).

* $P < 0.05$, ** $P < 0.01$

Does Diversity Operate Differently for Different Groups?

This leaves the question of whether diversity operates differently for different ethnic groups. Putnam (2007) concludes that the negative diversity effect is greater for the indigenous (white) community than for minority groups. However, Tolsma, Van der Meer and Gesthuizen (2009) and Lancee and Dronkers (2008) find no evidence for this in the Netherlands.

In order to assess the situation for the Netherlands, we included interactions in the models between ethnic diversity and the different ethnic groups (data not shown). First, we did this distinguishing all ethnic minority groups. No significant interaction effects were found; at least not when allowance was made for other individual characteristics. We then tested whether ethnic diversity has a more negative effect for the indigenous population than for the other ethnic groups combined. This appeared to be the case for contacts in the neighbourhood: indigenous residents have notably fewer neighbourhood contacts as the ethnic diversity of the neighbourhood increases. Yet again, no net interaction effect remains after controlling for all other characteristics. For the other dimensions of social

cohesion, the interactions between being indigenous and ethnic diversity had never been statistically significant. This means that native Dutch people are more trustful, and more active in voluntary work and informal help everywhere, including in ethnically diverse neighbourhoods.

Different Choices, Different Outcomes?

Finally, we assess to what extent our conceptual and methodological choices affected these outcomes. These additional analyses may help to solve the ongoing debate on diversity effects in the Netherlands. We described five differences between the Dutch studies: (i) different sample of cities, (ii) different (ethnic) groups that are affected by ethnic diversity, (iii) different aspects of social cohesion, (iv) different neighbourhood delineation, and (v) different emphasis on ethnic diversity or ethnic concentration.

Of these differences, our analysis shows that city size is not an important factor. Even though we focused on the 50 largest cities in the Netherlands, we still found little evidence for the diversity thesis. Moreover, additional

tests show that the neighbourhood diversity effect is not significantly stronger in the four biggest cities. City size thus does not explain why Lancee and Dronkers (2008) find more support for the diversity thesis than the other studies, including ours.

The distinction between the ethnic groups that might be affected by diversity in the neighbourhood does not matter either. In line with previous studies, we find no significant differences between ethnic majority and minority groups. The finding by Vervoort, Flap and Dagevos (2010) that diversity harms minorities' contacts with natives and stimulates their contacts with co-ethnics is better explained by ethnic concentration than by ethnic diversity.

Looking at different aspects of social cohesion, a clear pattern emerges. The only aspect of social cohesion that is consistently, negatively affected by ethnic diversity is contacts with neighbours. *All* previous studies (including ours) report significant effects: people have less contact with their neighbours in ethnically diverse neighbourhoods.

The fourth potential source of differences is the delineation of neighbourhoods. The administrative delineation (zip codes) encompasses a larger number of inhabitants, while the socio-geographical delineation appeals more to physical differences between neighbourhoods. We have retested our models using four-digit zip codes rather than socio-geographical neighbourhoods, using the correct accompanying contextual characteristics. These analyses led to the same substantial conclusions. In other words, the socio-geographical delineation may be more valid, but does not explain the differential findings in Dutch studies.

Finally, we address the issue of ethnic diversity versus ethnic concentration. Vervoort, Flap and Dagevos (2010) pull diversity effects (the Herfindahl index) and concentration effects (the percentage of ethnic minorities) apart by focusing solely on (specific) ethnic minority groups. However, for the ethnic majority group (the native Dutch) there is not enough distinction between ethnic diversity and ethnic concentration to differentiate between their effects. At city level, the correlation between the ethnic diversity index and the degree of concentration of non-Western ethnic minorities is 0.85; at neighbourhood level it is 0.92. Figure 1 shows this clearly. The points in the figure are all neighbourhoods included in our study. Neighbourhoods with high concentrations of minorities also have a high degree of ethnic diversity.

Ethnic concentration and ethnic diversity thus have similar effects on ethnic majority groups; in the Netherlands at least, these are—empirically—largely the same variables. This is confirmed by additional analyses.

Conclusion

This article tested whether ethnic diversity in the immediate residential setting poses a threat to the social ties in the community, similar to what Putnam found in the United States. Does living in a multi-ethnic setting also harm social cohesion in the Netherlands?

Our study suggests that the Putnam hypothesis finds little support in the Dutch context, as it holds partially at best. Ethnic diversity solely has a negative effect on the degree of contact in the neighbourhood: The presence of (many) ethnic minority groups in a neighbourhood has an adverse influence on neighbourhood contact. However, no diversity effect was found for the other dimensions of cohesion studied. Trust in others, doing voluntary work, and giving informal help are all lower in multi-ethnic neighbourhoods, but this is due simply to the fact that more people live in these neighbourhoods who achieve low scores on those dimensions. This is thus a compositional effect, not a diversity effect.

How can we explain the negative effect of ethnic diversity on neighbourhood contacts? The most likely explanation can perhaps be sought in ethnic competition theory: the more members of other ethnic groups are in a neighbourhood, the more threatened people feel and the more they withdraw into their own group. Not understanding each other's languages almost certainly plays a role here, too. However, these feelings of threat evidently do not spill-over to contacts and trust relationships outside the neighbourhood, which remain unaffected by 'Putnam's disease'.

Besides offering a crucial test of Putnam's thesis, this article seemingly solved the puzzling, differential findings in previous Dutch studies. Clear parallels can be drawn: Lancee and Dronkers (2008), Tolsma, Van der Meer and Gesthuizen (2009), and Vervoort, Flap and Dagevos (2010) all found (negative) effects of ethnic diversity on social contacts within the neighbourhood. Yet, on other dimensions of ethnic diversity, such as trust and ethnic distance no effects of diversity were found in these studies either (see also Völker, Flap and Lindenberg, 2007). Moreover, this article makes clear that ethnic concentration and ethnic diversity are—empirically—largely the same in the Netherlands—which explains why research into the effects of ethnic concentrations leads to similar conclusions (e.g. Gijsberts and Dagevos, 2007). If there is a high concentration of non-Western ethnic minorities in a Dutch neighbourhood, this is by definition also a neighbourhood with lots of different ethnic groups. Mono-ethnic groups such as those found in the United States are almost non-existent in the Netherlands. This also implies that it is not possible to

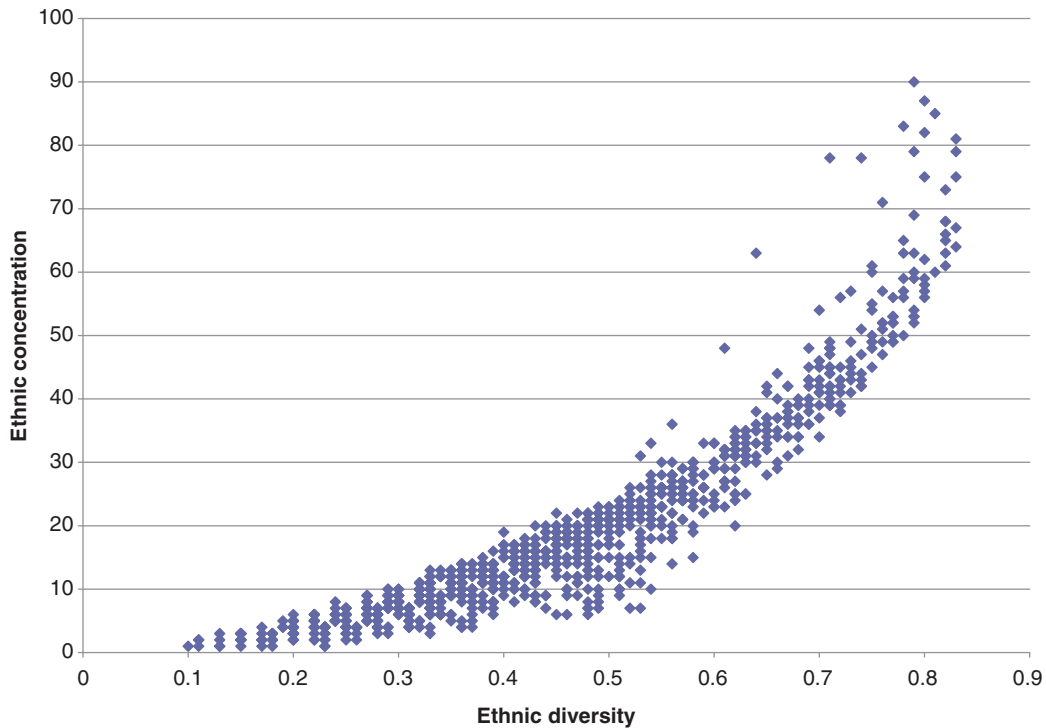


Figure 1 Relationship between ethnic concentration and ethnic diversity at neighbourhood level. The dots are all neighbourhoods included in this study in the 50 largest Dutch cities (2004). Ethnic concentration shows the proportion of non-Western ethnic minorities; ethnic diversity shows the Herfindahl index in which the seven groups are distinguished (HI7).

determine for the Dutch context whether it is the presence of many different groups that is harmful for social cohesion or rather the concentration of a single group.

What do our findings imply for policy? The first point to make is that the situation in ethnically mixed neighbourhoods in the Netherlands is not as dramatic as in the United States. People do not trust each other less simply *because* they live in ethnically diverse neighbourhoods. Moreover, we found no indications that mutual help and doing voluntary work are influenced by ethnic diversity. There is less social cohesion in ethnically diverse neighbourhoods, but this is simply because more people live in these neighbourhoods who are in a disadvantaged position. We follow Letki's suggestion (2008) that government attention should be focused on countering socio-economic disadvantage. An increase in education levels and employment rates of disadvantaged groups would have a positive effect on mutual trust and willingness to help others. Putnam (2007) already concluded that individual characteristics provide by far the strongest explanation for differences in social cohesion, a conclusion that has

become rather obscured in all the attention for the role of ethnic diversity.

Supplementary Data

Supplementary Data are available at *ESR* online.

Notes

1. This has to do with the fact that Statistics Netherlands does not identify small groups because of privacy considerations.
2. Supplementary analyses including household income (only possible for part of the database) led to the same findings. The distribution of each of the independent variables for each ethnic group separately can be found at http://www.scp.nl/Organisatie/Alle_medewerkers/Gijsberts_M_rove. See also [Supplementary data](#) online.

3. The complete analysis for all dimensions of cohesion (with all effects of individual, neighbourhood and city characteristics) can be found at http://www.scp.nl/Organisatie/Alle_medewerkers/Gijsberts_M_rove. See also [Supplementary data](#) online.
4. We find no interaction effect between ethnic diversity and socio-economic disadvantage in the neighbourhood. Putnam (2007) did find such an effect in the United States.

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