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Hunkering down as disruption of community cohesion: Municipal-, neighbourhood- and individual-level effects

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Abstract

In this article Putnam’s claim, that persons in the US living in areas with high concentrations of ethnic minorities hunker down, is investigated in the Netherlands. Hunkering down is conceptualized and operationalized as: avoiding public spaces, refraining from social contacts and evaluating the neighbourhood unfavourably. Using multi-level modelling based on a representative sample of almost 60,000 persons, individual and contextual characteristics on three levels are linked to three dimensions of (lack of) community cohesion. We found more significant effects of contextual characteristics at the level of neighbourhoods than at the level of municipalities. We found that the concentration of ethnic minorities in the neighbourhood contributes to the explanation of these three dimensions of community cohesion, however, these effects are relatively minor. Moreover, we found that indicators of economic poverty in the neighbourhood similarly determine these dimensions of hunkering down.

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Keywords: Hunkering down; community cohesion; ethnic minorities; the Netherlands; multi-level

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1. Introduction

Recent European research on determinants of community cohesion has received serious impulses from US research, particularly from Putnam’s study (2007; for an overview: Hagendoorn, 2009). His core statement is that international processes of immigration have increased ethnic diversity or ethnic concentration which in turn make people living in these locales distrustful, not only towards out-groups but even towards in-groups.

Empirical evidence for the relationship between immigration and lack of trust was actually shown for the United States (Putnam, 2007). In European countries, ethnic concentration, i.e., the relative group size of ethnic minorities, rather than ethnic diversity appeared to increase a lack of trust (Gesthuizen, van der Meer and Scheepers, 2009), but others found no strong nor consistent relationship with generalised trust (Hooghe, Reeskens, Stolle and Trappers, 2009). Moreover, some studies argued that ethnic group size decreases other attitudinal dimensions of community cohesion as well, like trust in the neighbourhood (in the Netherlands: Lancee and Dronkers, 2008; 2011; in the United Kingdom: Letki, 2008), and trust in others (in the USA and Canada: Stolle, Soroka and Johnson, 2008). Additionally, Putnam (2007) claims that ethnic diversity would tend to breakdown a wide array of other phenomena related to social capital, more generally: … people living in ethnically diverse settings appear to ‘hunker down’, that is to pull in like a turtle… (2007, p. 149). This crucial statement does not only refer to attitudinal reactions but rather to behavioural consequences (at the individual level) to which far less attention has been paid (Hagendoorn, 2009; Gijsberts, van der Meer and Dagevos, 2011). However, Putnam’s contribution lacks convincing evidence to substantiate this claim. Recent research also failed to find consistent evidence for this claim in the United Kingdom (Letki, 2008), in the Netherlands (Tolsma, van der Meer and Gesthuizen, 2009) and more in general, in European countries (Gesthuizen et al., 2009).

These studies have drawn attention of policy makers and scientists in Europea. Policy makers wish to prevent societal changes that may disrupt cohesion at local levels. Therefore, dimensions of community cohesion have become important policy issues for the Council of Europe (2004)b. Policy makers and scientists share common interests to discover the determinants of (lacking and/or declining) community cohesion (Laurence and Heath, 2008)c.

1.1. New contributions and questions

This lack of consistent evidence may have been due to a number of shortcomings. First, in previous studies, this social phenomenon of ‘hunkering down’ was not conceptualised and hence, not set out to be measured and explained. The focus was rather on related phenomena like sociability or contact with neighbours (Lancee and Dronkers 2008; 2011; Letki, 2008; Tolsma et al., 2009; Vervoort, Flap and Dagevos, 2011). In this contribution, we propose a broader measurement of ‘hunkering down’, not yet elaborated in previous studies, even not in the study in which the phenomenon of hunkering down was introduced (Putnam, 2007). In the absence of such a

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a Some scientists, however, have questioned whether some of these European societies are (also) at the edge of loosing their cohesion (for the UK: Hall 1999; for the Netherlands: Völker 2008; for Germany: Schmitt-Beck and Rohrschneider 2004).
b This topic became also important for the production and dissemination of statistical information within the new spearhead of Statistics Netherlands (Schmeets 2008; Te Riele and Roest 2009). Worldwide, national statistical institutes focus on dimensions of social cohesion such as in New Zealand (Spellerberg 2001), the United Kingdom (Harper and Kelly 2003), Australia (ABS 2004); Finland (Iisakka 2006) and Canada (PRI, 2005).
c Actually, recent contributions have focused on (multi-level explanations of mean levels of) certain aspects of social cohesion in a wide variety of countries (Ruiter and de Graaf 2006; Pichler and Wallace 2007; Meulemann 2008; Gesthuizen, van der Meer and Scheepers 2008a).
conceptualization, we propose that hunkering down may be approximated by (the classic phenomenon of) ‘retreatism’ (Merton, 1957) if one considers that people would reject cultural goals (e.g., group solidarity) as well as institutionalised means (e.g., socialising with others in public, favourably evaluated spaces like neighbourhoods), including both spatial and behavioural dimensions next to attitudinal dimensions, explicated in previous research. The spatial dimension of hunkering down may refer to avoiding public spaces. The social dimension may refer to refraining from social contacts in the neighbourhood. The attitudinal dimension may be indicated by evaluating the neighbourhood unfavourably. To the extent that people hunker down, (that is: avoid public spaces, refrain from social contacts with their fellow people in the neighbourhood and evaluate their neighbourhood unfavourably), a lack of community cohesion is obviously present.

Second, previous research used secondary data to test the relationship with sub-optimal qualities for multi-level analyses. Putnam’s study was rather unspecific and failed to show multi-level evidence. Other studies considered one or two levels above the individual level, be it the national level (e.g. Gesthuizen et al., 2009) or the Middle Super Output Areas (Laurence and Heath, 2008), the neighbourhood (Letki, 2008) or even the municipality and the neighbourhood (Tolsma et al., 2009). In this study, we will use rather extraordinary data that serve our purpose more adequately, to reflect more accurately experiences of ethnic concentrations. This sample provides methodological possibilities to test detrimental effects of ethnic concentration at different contextual levels, more rigorously than any previous study, against other contextual determinants including individual level determinants. The data are based on the Dutch population. In the Netherlands, one out of five inhabitants belongs to an ethnic minority: they are born abroad or one of their parents. Half of them stem from a non-western country, such as Turkey, Morocco, and Surinam. Almost 900,000 people are Muslim, which equals five percent of the Dutch population. There are growing concerns about the polarisation of the social and political life in The Netherlands. This is reflected in the discussions on the impact of Islam and non-western ethnic minorities on society. At the political level the concerns of the Dutch population are reflected in the support of new parties and political movements, such as the right-wing Party for Freedom (PVV, led by Geert Wilders), a trend towards increasing political polarisation (Aarts, Van der Kolk and Rosema, 2007). The Netherlands is indeed a country in which in the past decades massive immigration took place, resulting in an increased ethnic diversity. In this political and social context we will investigate the impact of ethnic diversity on hunkering down.

Hence, the crucial and rather complex question we set out to answer is: to what extent does ethnic concentration at different contextual levels above the individual (i.e., municipality and neighbourhood) have (detrimental) effects on hunkering down in the Netherlands 2006-2008?

2. Theories and hypotheses: Connecting societal contexts to individual behaviour

The relationship between ethnic concentration and hunkering down, as proposed by Putnam (2007), lacks elaborate theoretical propositions, except for rather short references to ‘constrict theory’ (Putnam 2007). Gesthuizen et al. (2009, p. 123) set out to develop such propositions and we suppose they actually built on the homophily principle, stating that people (prefer to) interact with similar rather than with dissimilar people, e.g., in terms of ethnicity (McPerson, Smith-Lovin, and Cook, 2001). Gesthuizen et al. supposed that the theoretical line of reasoning is essentially: “…the more diverse any social context is in terms of different ethnic groups, the less people of one’s own kind there are around with whom people can socially identify with, the less people feel comfortable with others and, hence, the less they will connect to other people, even to people of their own kind…”, which might induce eventually: hunkering down. This argument actually proposes that (a) ethnic

\[ \text{Hunkering down} \]
concentration does not only reduce solidarity and social contact with members of out-groups, but, moreover, (b) ethnic concentration also reduces solidarity and social contacts with members of the in-group. The first (a) proposition is consistent with one of the core propositions of ethnic group conflict theory, proposing that the larger the relative size of ethnic out-groups, the more out-groups will be perceived to be a threat to the in-group, hence the more in-groups will show ethnic exclusionism (Blalock 1967; Quillian 1995; Bobo 1999; Scheepers et al., 2002). However, the second (b) proposition is at odds with this theory and recently considered to be “… the radically distinctive finding…” (Hagendoorn, 2009).

Therefore, the challenge is to propose a more profound theoretical mechanism that explains why ethnic concentration increases hunkering down. Ethnic group conflict theory offers insights in this respect. Blalock (1967) and Bobo (1999) proposed to distinguish between actual and perceived competition: actual competition refers, a.o., to ethnic outgroup size and perceived competition refers to the threat perceived by members of majority groups due to the presence of minority groups*. Now, we propose to incorporate the homophily principle into ethnic group conflict theory. Elaborating on Putnam (2007) and Gesthuizen et al. (2009), we propose that the more people perceive less similar and vice versa more dissimilar others in their surroundings, e.g., ethnic minorities, to threaten their status and habits, the more they may become discomforted, due to their perceived devalued status and habits, possibly perceived to be tainted by out-groups surrounding them; their perceived devalued status and habits may consequently induce social disconnections. Hence they hunker down: avoid public spaces, refrain from social contacts and evaluate their neighbourhood unfavourably. This may be the explication for the relationship between ethnic concentration and hunkering down, as proposed by Putnam (2007). Although these presumptions on theoretical mechanisms, that link contextual circumstances to individual behaviour, are not (yet fully) testable with large-scale cross-sectional survey data, we consider them useful for the plausibility of ‘constrict theory’. Therefore, we (re-) derive the hypothesis that (1) ethnic concentration (at the regional, municipal or neighbourhood level) increases hunkering down. Considering the ‘proximity’ argument, suggested by Hagendoorn (2009), we would argue that the ‘closer’ the contextual characteristic, e.g., ethnic concentration, is to individuals, the stronger its effect on individuals’ behaviour, implying stronger effects on the level of the neighbourhood than on the level of the municipality than on the level of the region.

Previous studies have come up with different contextual determinants for hunkering down. Other researchers imply that it is rather economic poverty, that has been shown to be strongly correlated to ethnic concentration, that forces people to refrain from social contacts (Li, Pickles, and Savage, 2005; Letki, 2008). These authors argue that people living in social contexts deprived of economic means may hunker down, for the reason that they live in a social context where there are not many people around with the economic means to socially connect, even if they themselves do have the economic means (e.g., income) to socially connect. We would additionally argue, consistent with previously elaborated propositions, that the more people perceive less similar and vice versa more dissimilar others, e.g., poor people in their surroundings to threaten their status and habits, the more they may become discomforted, due to their perceived devalued status and habits and hence hunker down.

* Recent studies in many European countries have shown evidence for this link between actual competition at the contextual level, indicated by ethnic concentration, and perceived threat of competition at the individual level, explaining exclusion of legal migrants (Gijsberts, Scheepers and Coenders, 2004).
Another line of theoretical reasoning starts from social control theory (Sampson, Raudenbusch, and Earls, 1997), proposing that social control in deprived communities tends to breakdown, thereby increasing criminality or victimization rates which in turn may reduce collective efficacy. Previously, Ferraro (1995) found evidence for the proposition that criminality in people’s social context may increase subjectively felt fear of crime which in turn would not only increase alienation from neighbours, but moreover decrease social contacts, i.e., one aspect of hunkering down. We could also, consistently, argue that the more people perceive more dissimilar others, e.g., criminals in their surroundings to threaten their status and habits, the more they may become discomforted and hence hunker down.

There is another line of theories that focuses on economic cleavages (Uslaner and Brown, 2005), essentially proposing that: the higher the level of economic inequality, the higher the socio-economic barriers between social groups – even between those belonging to the same ethnicity – the less in-group members will connect to other people, even to people of their own kind. Evidence for these arguments has been found repeatedly (Alesina and La Ferrara, 2000; 2002). However, this argument is essentially different from the ones we proposed previously: it is about cleavages rather than about dissimilar in people’s social contexts.

These propositions all imply detrimental effects of the social context. People generally (prefer to) interact with similar others. To the extent that the social contexts they live in contain: more (different) ethnic minorities (ethnic concentration or diversity), more poor people (economic poverty), more criminals (criminality), more economically different people (economic inequality), the more they feel their status and habits to be threatened and hence the more likely they are to hunker down. These propositions consequently boil down to the hypotheses that (2) economic poverty or (3) criminality or (4) economic inequality or (at the municipal or neighbourhood level) increase hunkering down.

3. Data

Statistics Netherlands has the Population Register (derived from the municipal basic registration of population data; in Dutch: Gemeentelijke BasisAdministratie) containing information on age, sex, ethnicity, place of birth, place of residence, marital status and other information for all (registered) persons living in the Netherlands. Linking this longitudinal register information to data from the social surveys creates the Social Statistical Database (SSB). Within the framework of the ‘Safety monitor’, individual level data have been collected over the years 2006-2008. The sample frame consisted of some 30,000 persons aged 15 years and older per year. Within all 25 police regions, i.e., administrative regions developed by police authorities, almost all – 443 out of 447 – municipalities have been selected containing 8,424 neighbourhoods, i.e., administrative units developed and delineated by local authorities as rather homogeneous units in the municipalities. Next, a self weighted sample procedure has been applied, resulting in at least 1,000 persons per region. This sampling frame and procedures fit our purpose very well to test for detrimental effects of ethnic concentration and other contextual characteristics on hunkering down.

The Safety Monitor has been conducted in 2006 for the first time, thereafter also in 2007 and 2008. It is a mixed-mode survey: people that could be approached by telephone are interviewed by CATI (Computer Assisted Telephone Interview), others by CAPI (Computer Assisted Personal Interview). Out of four interviews, approximately three were conducted in CATI and one in CAPI, resulting in a total of almost 60,000 people in the period 2006-2008. The interviews lasted for some 20 to 25 minutes. The response rates, calculated in accordance with AAPOR’s standards, varied between 66 and 69 percent in this period. The eventual sample turned out to be representative for the Dutch population in terms of gender, age and marital status. Moreover, after reweighting,
the data are also representative for household size, country of origin and income per household (CBS 2008a). For our purpose we used the non-weighed data.

3.1. Measurements

3.1.1. Individual level measurements

Our dependent variables, i.e., phenomena related to hunkering down were measured as follows. For avoiding public spaces, we used Likert items, like: ‘I avoid certain spots in my municipality due to unsafety’, ‘I do not open my door late at night due to unsafety’, ‘I leave expensive stuff at home to avoid being pick pocketed’, ‘I walk around to avoid unsafe areas’. The reliability of the scale reached 0.66 (Cronbach’s alpha). For refraining from contact with neighbours, we used two items: ‘I have often contact with my neighbours’, and ‘I have many contacts with people in my neighbourhood’. Those who (strongly) disagree with these items obviously refrain from social contacts. The reliability of this scale amounted to 0.68. For unfavourable evaluations of the neighbourhood, we used Likert items, like: ‘People in this neighbourhood socialize pleasantly’, ‘I am satisfied with the composition of the population of this neighbourhood’. Those who (strongly) disagree clearly indicate to evaluate their neighbourhood unfavourably. Again, the reliability of the scale turned out to be satisfactory (alpha = 0.72). We have to acknowledge that this measurement has, just like much previous research, no reference to people belonging to the in-group versus the out-group, which would have provided us with a stricter test.

Next, we performed a principal factor analysis with an oblique rotation on these measurements jointly to test the 3-dimensional structure of hunkering down, shown in Table 1. The pattern matrix clearly indicates three distinct dimensions with the items showing rather high factor loadings, and moreover, no substantial cross-loadings, indicating the uni-dimensionality of these measurements. The measurements on refraining from contacts with neighbours and unfavourable evaluations of the neighbourhood correlate strongly (0.55), whereas the correlation between unfavourable evaluations and avoiding public spaces is moderate (0.23). The correlation between avoiding public spaces and refraining from social contacts is rather weak (0.09). The finding that all correlations are positive indicates that these dimensions together contribute to our understanding of hunkering down.

Table 1 Principal factor analysis on dimensions of hunkering down 2006-2008, communalities (after extraction) and factor loadings (oblique rotation), all cross-loadings <.20.

<table>
<thead>
<tr>
<th></th>
<th>communalities</th>
<th>Avoiding public spaces</th>
<th>Refraining from social contacts</th>
<th>Evaluating the neighbourhood unfavourably</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid areas in my community as it is not safe</td>
<td>.54</td>
<td>.74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do not open the door in the evening or night as it is not safe</td>
<td>.19</td>
<td>.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leave valuable belongings at home to avoid theft or robbery</td>
<td>.14</td>
<td>.37</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drive or walk round to avoid unsafe areas</td>
<td>.64</td>
<td>.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have many contacts with my direct neighbours</td>
<td>.54</td>
<td>.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have many contacts with other persons in this neighbourhood</td>
<td>.48</td>
<td>.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In this neighbourhood persons are going along with each other in a nice manner</td>
<td>.44</td>
<td>.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If there is any chance, I will move from this neighbourhood</td>
<td>.33</td>
<td>.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel comfortable with the persons who live in this neighbourhood</td>
<td>.58</td>
<td>.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am satisfied with the composition of the population in this neighbourhood</td>
<td>.31</td>
<td>.59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
We considered a number of individual level determinants relevant and/or statistically related to our dependent variables. We used: educational attainment, ranging from 1 (lowest education) to 5 (university degree); disposable household income, marital state (unmarried, married, divorced, widow), country of origin of respondents and their parents (native / originally from a western country versus originally from a non-western country) and age. Unfortunately, the data did not contain measurements on religiosity.

3.1.2. Contextual level measurements

The measurement of police regions and municipalities is straightforward as against measures of neighbourhoods for which different measures are available. In this contribution, we use the distinctions into neighbourhoods as developed by local (municipal) authorities and used by Statistics Netherlands, which indicates neighbourhoods as rather homogeneous spaces. To measure ethnic concentration, we used the relative presence of (i.e., proportions of) ethnic, non-western, minorities at regional, municipal and neighbourhood level as derived from Statistics Netherlands. The percentages varied from 0 per cent to 91 per cent in the 8,424 neighbourhoods. Moreover, we calculated the Herfindahl index, although it is criticised for being color blind. Just like Gijsberts et al. (2008), we found very high correlations between measures of ethnic diversity and measures of ethnic concentration: at the level of the region \( (r=.99) \), at the level of the municipality \( (r=.99) \) and at the level of the neighbourhood \( (r=.92) \).

Other measures, like the one on economic inequality were derived from secondary data based on the whole population (16 million) of the Social Statistical Database. For economic inequality, we computed the Gini-coefficient at the level of regions, municipalities and neighbourhoods. Similarly, economic poverty was indicated by the percentage of those depending on social benefits, including unemployment and social welfare derived from the total number of persons aged 15 to 64 years.

Criminality was calculated on these very data from the Safety Monitor (CBS, 2008b) as the victimization rate, the percentage of people over 15 years of age who had experienced some kind of criminal offence (like violence, burglary or theft). Official police data are not available, for reasons of privacy. These percentages of victimization were available at the level of regions and municipalities, however, not at the level of neighbourhoods where too few observations are present to produce robust estimates. In a first – exploratory – step, we used ordinary least square multiple regression analysis and checked for problems with multi-collinearity between these measures. VIF-values of all variables were below 5.

4. Analyses

Since both in our theoretical propositions as in our data, individuals are nested within neighbourhoods which are nested within municipalities which are nested within regions, we use multi-level techniques available in MI-Win (Snijders and Bosker, 1999). In order to disentangle contextual and individual effects we used multi-level analyses, and grouped the variables into the following four levels: (a) individuals (58,609); (b) neighbourhoods \( (N=8,440) \); (c) municipalities \( (N=443) \); and (d) regions \( (N=25) \). In addition to the neighbourhood- and municipality-level, we included the region-level as it is demonstrated by Opdenakker and Van Damme (2000) that in a four-level design, fixed effect estimates are most likely affected in the levels adjacent to the ignored one. So, including the region-level will result in more accurate estimates for the adjacent, municipality, level.

\[ \text{f We also ran analyses including the mean income per unit. These effects turned out to be non-significant.} \]

\[ \text{g Caution has to be taken regarding rules of thumb, when it comes to interpreting VIF values. As O'Brien (2007) points out, multi-collinearity is not the only reason for inflated standard errors of regression effects. Although inflation may have occurred, we found significant effects even at the regional level where the number of cases is smallest.} \]
All measurements, except for categorical variables (like belonging to majority or minority groups and marital status) were standardised\(^3\) in order to enable comparisons between parameter estimates. As the dependent variables approximate continuous measurement levels, we employ linear estimation techniques using models that are designed for normally distributed dependent variables\(^1\).

We set out estimating empty models for our three dependent variables (i.e., avoiding public spaces, refraining from social contacts and evaluating the neighbourhood unfavourably) on the basis of which we conclude to what extent there is significant variation at the individual, neighbourhood and municipality level (see Table 2). Yet the most variance to be explained is clearly at the level of individuals.

Table 2. Decomposition of variances (and their standard errors) between (25) regions, (443) municipalities, (8440) neighbourhoods and (plus minus 58,609) individuals regarding hunkering down

<table>
<thead>
<tr>
<th>Levels:</th>
<th>Avoiding public Places</th>
<th>Refraining from social contacts</th>
<th>Evaluating the neighbourhood unfavourably</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empty Model</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>regions</td>
<td>0.005 (0.004)</td>
<td>0.004 (0.003)</td>
<td>0.004 (0.003)</td>
</tr>
<tr>
<td>municipalities</td>
<td>0.039 (0.005)</td>
<td>0.019 (0.003)</td>
<td>0.017 (0.003)</td>
</tr>
<tr>
<td>neighbourhoods</td>
<td>0.012 (0.002)</td>
<td>0.016 (0.002)</td>
<td>0.051 (0.003)</td>
</tr>
<tr>
<td>individuals</td>
<td>0.931 (0.006)</td>
<td>0.957 (0.006)</td>
<td>0.924 (0.006)</td>
</tr>
<tr>
<td>Model containing only individual level characteristics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>regions</td>
<td>0.005 (0.004)</td>
<td>0.003 (0.002)</td>
<td>0.004 (0.002)</td>
</tr>
<tr>
<td>municipalities</td>
<td>0.039 (0.005)</td>
<td>0.015 (0.003)</td>
<td>0.013 (0.003)</td>
</tr>
<tr>
<td>neighbourhoods</td>
<td>0.012 (0.002)</td>
<td>0.011 (0.002)</td>
<td>0.040 (0.003)</td>
</tr>
<tr>
<td>individuals</td>
<td>0.927 (0.006)</td>
<td>0.939 (0.006)</td>
<td>0.906 (0.006)</td>
</tr>
<tr>
<td>Model containing individual plus contextual characteristics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>regions</td>
<td>0.003 (0.002)</td>
<td>0.002 (0.001)</td>
<td>0.001 (0.001)</td>
</tr>
<tr>
<td>municipalities</td>
<td>0.007 (0.002)</td>
<td>0.004 (0.001)</td>
<td>0.003 (0.001)</td>
</tr>
<tr>
<td>neighbourhoods</td>
<td>0.010 (0.002)</td>
<td>0.007 (0.002)</td>
<td>0.009 (0.002)</td>
</tr>
<tr>
<td>individuals</td>
<td>0.926 (0.006)</td>
<td>0.937 (0.006)</td>
<td>0.903 (0.006)</td>
</tr>
</tbody>
</table>

\(^3\) The contextual variables were standardised (zero mean and unit standard deviation) across neighbourhoods, municipalities or regions, depending on the level; the three dependent variables were standardised over all respondents in the sample.

\(^1\) Nevertheless, some dependent variables, most notably the measurements of formal social capital, do not follow the normal distribution, so that estimations with models for Poisson-distributed dependent variables would be more appropriate. The estimations of these models, however, do not provide different conclusions as compared to our presented estimations. And an advantage of using the normal distribution is that the package estimates variance components at both levels. Nevertheless, since these variances are based on models that sometimes violate its assumptions to a certain extent, we approach them with care and only attach preliminary conclusions to our results.
In a subsequent step, we first included independent individual level variables (like educational attainment, disposable income, age, marital status and ethnicity). We hardly found reduction in the neighbourhood-, and municipality-level variance so that we can rule out that differences in our dependent variables are due to compositional differences (Snijders and Bosker, 1999). In a next step, we included the independent contextual variables (i.e., ethnic concentration, economic inequality, economic poverty and criminality) at the three different contextual levels (i.e., region, municipality and neighbourhood), looked at their effects, and again evaluated the reduction of the variance (contextual effects).

Moreover, we used these large-scale data for other purposes. First, we re-ran the analyses for different samples, containing random samples of respectively 2,000, 5,000 and 10,000 respondents to inspect the statistical power of the analyses. Second, we re-ran the analyses while ignoring one of the contextual levels to ascertain to what extent this would change the effects of contextual determinants at other levels. But before we come to that, we first present descriptive information on overall levels of community cohesion.

5. Results

5.1. Descriptive analyses

We found that a minority of the Dutch population, some three in ten persons, avoid certain public spaces. Also, a minority of the population refrained from contacts with their neighbours and with persons in their neighbourhood. In addition, unfavourable evaluations of the neighbourhood were rather scarce. The figures for the consecutive years – 2006, 2007 and 2008 – do not change significantly and hence not substantially.

Figure 1. Mean scores hunkering down (0-8) by concentration of non-western ethnic minorities in neighbourhoods (in deciles 1-10)
Figure 2. Mean scores hunkering down (0-8) by economic poverty in neighbourhoods (in deciles 1-10)

Figure 3. Mean scores hunkering down (0-8) by income inequality (gini) in neighbourhoods (in deciles 1-10)
Next, we calculated scale scores for the various areas with low and high concentrations of non-western ethnic minorities in respondents’ neighbourhoods, in order to get a first impression of the relationships between ethnic concentration and the abovementioned dimensions of disruption of social cohesion. These results reveal that hunkering down is more prevalent in neighbourhoods where the concentration of non-western ethnic minorities is higher (Figure 1). Scale scores gradually increase in areas with higher concentrations of ethnic minorities. Similarly, we calculated the results for poverty and economic inequality areas. These descriptive statistics reveal that there tends to be more hunkering down among people living in higher poverty neighbourhoods (Figure 2). However, we found hardly any relation between the level of economic inequality and hunkering down (Figure 3).

5.2. Multi-level analyses

Then, let us have a look at Table 3. A first glance at the parameter estimates tells us that, overall, these standardised effects of the contextual characteristics are quite minor at the level of municipalities (ranging from -0.040 to 0.084) and neighbourhoods (ranging from -0.037 to 0.173), reaching significance due to the high numbers of observations. The standardised regression parameter of, e.g., 0.173 corresponds with an unstandardised parameter of 0.04. This implies that an increase of 10 percentage points of ethnic concentration in the neighbourhood corresponds with an increase of about 0.1 of unfavourable evaluations of the neighbourhood on a scale ranging from 0 to 4.

Let us first have a look at the supposed detrimental effects of ethnic concentration, referred to in hypothesis (1). At the level of the municipality, we find that ethnic concentration significantly increases avoiding public spaces, however, it does not significantly affect refraining from social contacts nor unfavourable evaluations of the neighbourhood. Yet, ethnic concentration at the neighbourhood level turns out to significantly increase avoiding public spaces, increase refraining from social contacts and increase unfavourable evaluations of the neighbourhood. These findings imply that such ethnic concentration effects are mainly present at the level of neighbourhoods, providing us with partial support for hypothesis 1. We replicated the analyses taking the measurement of ethnic diversity into account. Considering the correlations that we found between ethnic concentration and ethnic diversity, we expectedly found similar effects, both in terms of direction as well as in terms of significancies.

Next, let us evaluate the hypotheses on economic poverty and criminality (hypotheses 2 and 3). Regarding the effects of economic poverty, a rather consistent picture emerges. At both the level of the municipalities and neighbourhoods, we find that the higher the economic poverty, the more people tend to avoid public spaces, tend to refrain from social contacts as well as tend to evaluate their neighbourhood un-favourably. These findings support hypothesis 2 on economic poverty. We find that there are no effects of criminality on avoiding public spaces and neighbourhood evaluation, whereas the effect on refraining from social contacts is positive, yet hardly reaches significance. These findings do not support hypothesis 3.

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1 We re-ran the analyses with smaller random subsamples of the rather big sample we have, i.e., for subsamples of 2,000, 5,000 and 10,000 people. All contextual and individual level effects estimated for these subsamples were comparably small as those for the big sample. For the 2,000, 5,000 and 10,000 subsamples, the number of significant contextual effects for all three dependents amounted to 3, 11, and 15, while for the full sample there were 19 significant contextual effects, as shown in table 2. Most of the significant contextual subsample effects pertained to determinants that had a significant effect for the full dataset as well, i.e., 3, 9 and 14 for the three subsamples and these 26 effects had the same sign as their counterparts for the full sample. For the individual level determinants, in the big sample there were 14 significant effects, while there were 4, 8 and 9 significant effects for the 2,000, 5,000 and 10,000 subsamples; all of these 21 effects were related to determinants with a significant effect for the full sample as well and had the same sign.
Regarding the detrimental effects of economic inequality, the findings are somewhat inconsistent: at the level of municipalities and neighbourhoods we find some opposite and some non-significant effects. These findings, overall, reject hypothesis 4.

Table 3. Multi-level regression analyses derived from model 2: individual and contextual characteristics on hunkering down

<table>
<thead>
<tr>
<th></th>
<th>Avoiding public spaces</th>
<th>Refraining from social contacts in neighbourhood</th>
<th>Evaluating the neighbourhood unfavourably</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>s.e.</td>
<td>sign.</td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>-0.141</td>
<td>0.017</td>
<td>*</td>
</tr>
<tr>
<td><strong>Regional level</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic concentration</td>
<td>-0.016</td>
<td>0.017</td>
<td></td>
</tr>
<tr>
<td>Economic inequality</td>
<td>0.022</td>
<td>0.013</td>
<td></td>
</tr>
<tr>
<td>Economic poverty</td>
<td>-0.046</td>
<td>0.012</td>
<td>*</td>
</tr>
<tr>
<td>Criminality</td>
<td>0.043</td>
<td>0.018</td>
<td>*</td>
</tr>
<tr>
<td><strong>Municipality level</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic concentration</td>
<td>0.067</td>
<td>0.011</td>
<td>*</td>
</tr>
<tr>
<td>Economic inequality</td>
<td>-0.040</td>
<td>0.009</td>
<td>*</td>
</tr>
<tr>
<td>Economic poverty</td>
<td>0.084</td>
<td>0.012</td>
<td>*</td>
</tr>
<tr>
<td>Criminality</td>
<td>0.019</td>
<td>0.010</td>
<td></td>
</tr>
<tr>
<td><strong>Neighbourhood level</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic concentration</td>
<td>0.051</td>
<td>0.007</td>
<td>*</td>
</tr>
<tr>
<td>Economic inequality</td>
<td>0.011</td>
<td>0.006</td>
<td></td>
</tr>
<tr>
<td>Economic poverty</td>
<td>0.036</td>
<td>0.007</td>
<td>*</td>
</tr>
<tr>
<td><strong>Individual level</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-western ethnic</td>
<td>-0.113</td>
<td>0.020</td>
<td>*</td>
</tr>
<tr>
<td>minorities (ref.=natives)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education (5 levels)</td>
<td>-0.016</td>
<td>0.004</td>
<td>*</td>
</tr>
<tr>
<td>Disposable income</td>
<td>-0.000</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Age (in years)</td>
<td>0.001</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Married (ref.=unmarried)</td>
<td>0.033</td>
<td>0.012</td>
<td>*</td>
</tr>
<tr>
<td>Widowed (ref.=unmarried)</td>
<td>0.143</td>
<td>0.025</td>
<td>*</td>
</tr>
<tr>
<td>Divorced (ref.=unmarried)</td>
<td>0.195</td>
<td>0.020</td>
<td>*</td>
</tr>
</tbody>
</table>

*p < 0.05
Comparing the standardised effects of contextual characteristics within a given level brings insights as well. Focusing on the level of municipalities and neighbourhoods, where parameter estimates are most robust due to large numbers of observations, we find that effects of ethnic concentration as compared to effects of economic poverty appear to compete for priority; we have to emphasize, though, that all parameter estimates are relatively minor.

At the individual level, we find that non-western ethnic minorities avoid public spaces less than people belonging to the majority, however, these minorities refrain more from social contacts in their neighbourhood. We find that the higher the educational level of our respondents, the less they hunker down, although the effect on refraining from social contacts is non-significant, just like the effect of income does not reach significance regarding any dimension of hunkering down. Unmarried people (i.e., the reference category) appear to avoid public spaces less than married, widowed and divorced people. Then again, married and widowed people refrain less from social contacts and evaluate their neighbourhood less unfavourably than unmarried people.

6. Conclusion and discussion

The focus of this contribution is on the crucial question to what extent and, more particularly, at which contextual level Putnam’s (2007) claim also holds for the Netherlands that persons living in areas with higher ethnic concentrations will ‘hunker down’, a rather under-conceptualised phenomenon that we proposed to elaborate with three dimensions: avoiding public spaces, refraining from social contacts in the neighbourhood and evaluating the neighbourhood unfavourably. This conceptualisation approximates the classic phenomenon of ‘retreatism’, once coined by Merton (1957). This research question has been elaborated theoretically, including complementary explanations from which hypotheses were derived, subsequently tested on a representative large scale survey among some 60,000 people in The Netherlands in the period 2006-2008. The effects of individual and contextual characteristics have been analysed at four different levels simultaneously, using multi-level modelling.

We found rather consistent, yet relatively minor, effects of the concentration of non-western ethnic minorities on all three dimensions: on avoiding public spaces, on refraining from social contacts in the neighbourhood and on unfavourable evaluations of the neighbourhood. However, these ‘hunkering down’ effects are not consistently present at the level of municipalities. This seems to imply that ethnic concentration effects predominantly work at the level of neighbourhoods, which is a social context that is actually rather close to our respondents and which is consistent with previous suppositions on proximity (Hagendoorn, 2009) and supports our hypothesis (1) at least partially. Gijsberts et al. (2008; 2012) found a similar effect for contact with people in the neighbourhood but Tolsma et al. (2009) did not: such differences may be due to (smaller) samples at this level as shown in additional analyses. These findings are well interpretable, based on the homophily principle included in ethnic group conflict theory: the more dissimilar people, e.g., ethnic minorities, there are in people’s direct surroundings, the more they feel threatened in terms of status or habits, the stronger their inclination to interact with similar people is discomforted, which sets of retreatism or hunkering down.

Apart from the concentration of non-western ethnic minorities, we included at each contextual level other contextual characteristics. In line with other researchers, our results support the proposition that it is economic

\[1\] Note, however, that analyses in which we ignored the neighbourhood level, showed that the effects of ethnic concentration were present at the level of the municipality for all three aspects of hunkering down.
poverty, rather consistently so at the level of municipalities and neighbourhoods, that forces people to hunker down (Letki, 2008; Laurence and Heath, 2008), supporting our hypothesis (2). So, people living in social contexts deprived of economic means may hunker down as they are surrounded by poor persons who threaten their status and habits and, moreover, may have insufficient economic means to build up social capital in their neighbourhood. We found hardly any evidence for the proposition that criminality would force people to scare away from the public sphere and hunker down at the level of municipalities, hence rejecting hypothesis (3).

As yet, our results revealed that economic inequality had no such consistent impact on dimensions of community cohesion, contradicting other research findings (Putnam, 2007) and refuting our hypothesis (4). This finding actually points out that the argument on economic inequality is essentially different from the above arguments building on the homophily principle: ethnic concentration, and economic poverty may induce a (perceived) threat to people’s status and habits whereas economic inequality may not have similar consequences. Higher economic inequality may also imply that there are more high status people around poor people from which they may gain status.

Considering these findings from the perspective of the homophily principle jointly with ethnic group conflict theory (Blalock, 1967) provides us with additional insights: it may actually be the case that those people, belonging to the majority in the Netherlands with whom they preferably interact, living in neighbourhoods with high numbers of ethnic minorities and, moreover, living among poor people, perceive these minorities and poor people to threaten their status and their habitual way of life. However, whereas previous studies showed that perceived ethnic threat induces nationalistic attitudes, indicating in-group solidarity, well in line with theoretical propositions from this tradition (Gijsberts et al., 2004), we now may suggest that perceived (ethnic) threat to status and habits induces hunkering down. The latter phenomenon implies a decrease rather than an increase of in-group solidarity. People who perceive ethnic minorities or poor people to threaten or devalue their status and habits may become discomforted more generally and hunker down. This elaboration should be tested more rigorously with valid measurements on this mediating theoretical mechanism.

The finding that, in particular, contextual characteristics at the neighbourhood level turn out to affect hunkering down rather consistently, however quite weakly, might be of importance for politicians and policy makers. However, we found that at the individual level where there is much more variance to explain, educational attainment is rather important for hunkering down, a finding rather consistent with previous European findings (Gesthuizen et al., 2008): the higher people’s educational attainment, the less they withdraw from different social spheres. Therefore, these overall findings lend some support to the policy that we should concentrate on investments to improve the educational and hence economic situation of individuals in neighbourhoods.

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