Investigating the Goodhart thesis at the local scale:
Neighbourhood ethnic heterogeneity and negative perceptions of the local area in the British Crime Survey

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Outline of today’s presentation

- Background to the study
- Using small area identifiers
- Submitted work – antisocial behaviour (ASB)
  - Measuring ASB & ethnic heterogeneity
  - ASB modelling strategy
  - ASB results
- Ongoing work – collective efficacy
The ‘Goodhart Thesis’

In a provocative argument the political commentator David Goodhart (editor of Prospect Magazine) suggested that the UK is now “too diverse”, and that ethnic heterogeneity is associated with adverse social consequences.

Not entirely new – e.g. Shaw and McKay on “social disorganisation”
Exploring Goodhart

The impact of diversity (ethnic) on a number of (adverse) outcomes

- Anti Social Behaviour (submitted to journal & main topic covered today)
- Collective efficacy (nearing completion & overview of this work today)
  - social cohesion
  - informal social control
- Perceptions of crime levels nationally versus locally (to start soon)
Diversity not disadvantage?

“There is evidence that the more diverse an area is in racial terms, the less likely its residents are to feel that they trust each other. This is an important argument and it is important that we examine it”

(David Blunkett, 2004)

- **Alesina and La Ferrara:** heterogeneity reduces civic engagement and social capital: “natural aversion to heterogeneity”.

- **Putnam:** 41 communities in USA – diversity associated with reduction in social capital.
British studies: disadvantage not diversity?

- **Letki:** no independent effect for diversity on social capital and trust; SES more influential.

- **Pennant:** no statistically significant relationship between diversity and either civic participation or volunteering.

- **Heath and Laurence:** crime and disadvantage more significant as predictors of cohesion than ethnicity or heterogeneity.
The British Crime Survey (BCS)

- The BCS is a victimisation survey which asks respondents about their own experiences of crime.

- Primarily designed to capture ‘the dark figure of crime’

- Also asks many questions on people’s perceptions of their neighbourhood social environment.

- First sweep 1982 – continuous since 2001/02.

- This study based on the 2006/07 sweep with a sample size c47,000 and response rate of 75%

- Stratified and clustered random sample of adults living in private households.

- Many studies employing bivariate analysis, some logistic regression but very few taking advantage of the clustered design for multilevel modelling.
Multilevel structure of the BCS

- **Level 3**
  - Police Force Area

- **Level 2**
  - Postcode sectors
  - Super Output Areas

- **Level 1**
  - Respondent
  - Respondent
  - Respondent
  - Respondent
Middle SOAs versus Lower SOAs

Middle SOAs

Area level data not available at MSOA level

Continuous data e.g., Indices of Deprivation ✔

Categorical data e.g., geodemographic classifications ✗

Lose information by ‘aggregating up’
Middle SOAs versus Lower SOAs

Middle SOAs
- Area level data not available at MSOA level
- Continuous data e.g., Indices of Deprivation
- Categorical data e.g., geodemographic classifications
- Lose information by ‘aggregating up’

Lower SOAs
- Too sparse clustering
- In other words too few respondents per area
Data at the MSOA level

Attached via the Super Output Area codes

Census data
- Population turnover
- Ethnic group (for measures of ethnic heterogeneity)
- Age profile

Cross Government rural and urban area classification

2007 Indices of Deprivation
- Seven separate domains including crime
Measuring...

(1) Antisocial behaviour

(2) Ethnic heterogeneity
Perceptions of antisocial behaviour

How much of a problem is…
…abandoned or burnt-out cars
…noisy neighbours or loud parties
…people being drunk or rowdy in public places
…people using or dealing drugs
…teenagers hanging around on the street
…rubbish or litter lying around
…vandalism, graffiti and other deliberate damage to property
Perceptions of antisocial behaviour

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...vandalism, graffiti and other deliberate damage to property

∑

3=very big problem
2=fairly big problem
1=not very big problem
0=not a problem at all

11+ defined as ‘high levels of perceived ASB’

Home Office Statutory Performance Indicator
Measures of ethnic heterogeneity (1)

Theil Entropy Score

\[ E_i = \sum_{r=1}^{r} (\pi_{ri}) \ln \left( \frac{1}{\pi_{ri}} \right) \]

\( i \) stands for a neighbourhood area.

\( r \) stands for the following ethnic groups (a) white, (b) mixed, (c) Asian or Asian British, (d) black or black British, and (e) Chinese or other.

\( \pi_{ri} \) represents the proportion of group \( r \) in area \( i \) (2001 Census).
Percentage with high perceived ASB by Theil entropy score

- Top decile of Theil scores: 29
- England: 17
- Bottom decile of Theil scores: 11

Percentage with high levels of perceived ASB
Measures of ethnic heterogeneity (2)

Cluster Analysis

Cluster 7 - dominant group(s) = Asian

Cluster 6 - dominant group(s) = white & black

Cluster 5 - dominant group(s) = white & Asian

Cluster 4 - dominant group(s) = white (mixture of other groups)

Cluster 3 - dominant group(s) = white (significant group = Asian)

Cluster 2 - dominant group(s) = white (significant group = black)

Cluster 1 - dominant group(s) = white (least diverse MSOAs)

Mean percentage in MSOAs
Percentage with high perceived ASB by ethnic clusters

Cluster 6 Dominant group(s)=white and black
Cluster 7 Dominant group(s)=Asian
Cluster 2 Dominant group(s)=white (significant group=black)
Cluster 3 Dominant group(s)=white (significant group=Asian)
Cluster 5 Dominant group(s)=white and Asian
Cluster 4 Dominant group(s)=white (mixture of other groups)
England average
Cluster 1 Dominant group(s)=white (least diverse MSOAs)
Modelling strategy
Modelling strategy – multilevel

Why multilevel modelling and not simple logistic regression?

Data are clustered (hierarchical in nature)

Not taking account of this data structure increases likelihood of Type 1 errors – detecting statistical significance when it is not really present.

Simultaneous modelling of individual and area characteristics
The Multilevel Model

Used MLwiN devised by the Centre for Multilevel Modelling in Bristol
http://www.cmm.bristol.ac.uk/index.shtml

Three level model
Police Forces Areas (n=38 (England only))
Middle Super Output Areas (n=4,002)
Individuals (n=43,115)

Generalised least squares (IGLS) based on first order marginal quasi-likelihood approximation.

Model’s coefficients checked for stability using Monte Carlo Markov Chain (MCMC) simulation.
Mrs ‘base’ or ‘stereotypical’ respondent

**Individual / household factors**
- Age 50
- Married
- Not been a victim of BCS crime
- In good health
- Owner occupier

**Area factors**
- Living in an urban area
- Average levels of deprivation
- Average Theil entropy score
- Living in a predominately white area
Results
## Factors affecting perceptions of ASB

<table>
<thead>
<tr>
<th>Individual and household factors</th>
<th>Area factors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factors which increase chance of having ‘high’ levels of perceived ASB</strong></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>High levels of deprivation</td>
</tr>
<tr>
<td>Victim of BCS crime</td>
<td>High levels of observed crime</td>
</tr>
<tr>
<td>Poor health</td>
<td>High levels of children and teenagers</td>
</tr>
<tr>
<td>Low household income</td>
<td>(Asian Cluster)</td>
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<tr>
<td>Social rented</td>
<td></td>
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<tr>
<td>Flat</td>
<td></td>
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<tr>
<td><strong>Factors which decrease chance of having ‘high’ levels of perceived ASB</strong></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>Rural areas</td>
</tr>
<tr>
<td>Not lived at address for long</td>
<td>High levels of informal social control</td>
</tr>
</tbody>
</table>
An example of how a combination of factors can increase the probability of high perceived ASB

*Individual / household factors*
- Younger person
- Recent victim of BCS crime
- Low household income
- Living in social housing

*Area factors*
- High levels of crime
- High levels of deprivation
An example of how a combination of factors can increase the probability of high perceived ASB

Individual / household factors
Younger person
Recent victim of BCS crime
Low household income
Living in social housing

Area factors
High levels of crime
High levels of deprivation

69% increase
9% (base)
Does ethnic heterogeneity affect levels of perceived ASB?

Known individual and area factors
- Ethnicity, age, victimisation, observed crime, deprivation, informal social control

Ethnic heterogeneity
- Perceiving ASB to be a ‘big’ problem
- Theil entropy score: Level of ethnic diversity in an area is not significant
- Ethnic clusters: One cluster – those areas with predominantly Asian residents – is just significant

Now need to investigate mediating roles
Ongoing work... collective efficacy
Ongoing work – collective efficacy

- Explore other potential ‘adverse social consequences’ of heterogeneous neighbourhoods namely reduced levels of informal social control and social cohesion and trust.

- Sampson et al. (1997) defined collective efficacy as “social cohesion among neighbours combined with their willingness to intervene on behalf of the common good”. Their measure of collective efficacy combined two Likert scales ‘informal social control’ and ‘social cohesion and trust’.
Social cohesion and trust

The five variables included in the scale were...

1. How many people in the neighbourhood can be trusted
2. Willingness to help neighbours
3. Close knit community
4. Do not share the same values (reverse coded)
5. Different backgrounds get on well together

All five statements were on a four point scale scoring zero for the most positive response up to three for the least.

Cronbach’s alpha score was 0.73.

Mean score (weighted) was 5.24.
Informal social control

Do something about...
(i) a group of local children who were playing truant from school and hanging around on a street corner;
(ii) children who were spray-painting graffiti on a local building;
(iii) a fight near their home and someone was being beaten up or threatened;
(iv) tell off a child who was being rude to an adult and
(v) participate if they were asked by a local organisation to help solve a community problem.

Score ranging from three for very unlikely through to zero for very likely.
Collective efficacy modelling strategy

We are treating the two dimensions of collective efficacy - namely social cohesion and trust (SC&T) and informal social control (ISC) - as separate dependent variables.

Then put the two dependent variables in the same multilevel model – known as a multivariate multilevel model.
Advantages of multivariate multilevel models

(1) The relative influence of any one independent variable can be assessed simultaneously for each dimension of collective efficacy.

(2) Whilst varying effects for any one explanatory variable could be obtained from separate models, the statistical significance of any differences can only be gauged when the models are run simultaneously.

(3) The ability to estimate the higher-level covariance terms. In other words we can investigate the extent and manner in which the two dimensions of collective efficacy (namely social cohesion and trust and informal social control) co-vary across geographies.
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Any questions?