
How much does place matter?

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Anecdote is the singular of data

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“Everything is real estate. You’re a product of your geography.”⁽¹⁾

Why put together yet another debate about the importance or irrelevance of place in society? The superficial reason for doing this here was that in Autumn 2000 I was asked to referee a paper by Andrew McCulloch (2001) which both impressed and concerned me. I was impressed by the amount of work and skill which had gone into this paper, as with much of the analysis of the British Household Panel Survey (BHPS) coming out of Essex University. I was also concerned with some of the underlying assumptions and implicit beliefs expressed through this and in similar recent papers using the BHPS. The six short articles which follow and McCulloch’s reply reflect much of the admiration for his work and skill, a great deal of support but also much dissent. I summarise them next; however, they are all kept short enough to be summaries of a much wider debate in themselves. The authors were chosen as being leading researchers in social science, ranging from the study of deprivation and poverty, to employment, housing, voting, area effects, health, multilevel modeling, and other similar subjects and techniques. They were limited (as am I) to only a few words and half a dozen references.

Among a number of the critics, the paper raised the issue of whether area-based initiatives are a valid policy option for government today. George Smith, Michael Noble, and Gemma Wright suggest that McCulloch is on shaky ground in arguing against area-based policy initiatives; in contrast to his claims they suggest that we do need such policies and that we do not need further evidence that area effects exist to justify area-based initiatives. In further contrast, Roger Burrows and Johnathan Bradshaw argue that there is little evidence that area-based policies alleviate poverty. However, they too believe there is not enough ‘evidence’ in McCulloch’s paper to support his general conclusions—with which they sympathise. Both of the above papers argue for longitudinal studies. Heather Joshi, a long-term advocate and

⁽¹⁾Thanks to Nick Phelps for this. Source: Lenny Bruce, comedian character, in Don DeLillo’s *Underworld*, (1998, page 544). ‘Anecdote is the singular of data’ came from an e-mail forwarded to me by Charles Pattie.

researcher of longitudinal data, is largely supportive of McCulloch's findings, but still believes there may be a place for policies towards places, as long as they operate within a context of policies towards people.

Charles Pattie argues that McCulloch has many good points to make, but that we should not underestimate the political symbolism of area-based policies. He also points out some subtle inconsistencies in the logic of McCulloch's modeling—in short that it ignores the possible past influence of contextual effects, using the past to 'control' out context. Burrows, Bradshaw, and Pattie all call for a longer historical perspective in general, as well as in the actual modeling (in Pattie's case). The following contribution, from Richard Mitchell, partly provides this, as well as a strong critique of the kinds of multilevel modeling approaches McCulloch uses, from someone who has also used them for his own research. Self critiques are often the strongest kind—as we tend to know many of our own weakness. Finally, Anne Green returns to some of the issues McCulloch's paper raises in relation to policy, noting the tendency of residents of poor neighbourhoods who get employment to 'move on up' and leave the area, hence helping to maintain the context. McCulloch replies to his critiques above by agreeing with many points they make but pointing out that: "The evidence presented in most analyses regarding local contextual effects is only circumstantial" (page 1365).

Having summarised the debate that follows, instead of providing you with a continuation of this polite academic discussion, I am going to use my remaining words to tell you of the substantive reason I thought it would be good to have this debate, and why whether you think place matters may depend mostly on which places you have been to, in your mind and on the ground. My argument here is very different from those which follow and begins with McCulloch's argument on the nature of circumstantial evidence. I believe that the extent to which you believe the findings of research of this kind depends as much on your own life experiences, as on what you have read as a student or academic, or on what you have found out if you are an active researcher. That is not to say that there is no right answer. Just that the right answer is contingent or 'circumstantial'. To start, how might it feel to be described as being part of a weak 'human resource base' [see current trends in 'third way' economic geography (Plummer and Taylor, 2001)] or more bluntly: as sediment?:

"In turn, the uneven way in which processes of mobility and job creation operate leave behind an accumulating deposit of 'sediment' (of persistent unemployment and of other individuals in a relatively weak competitive position) on the margins of the labour market each time the tide goes in and out" (Green, page 1364).

McCulloch concludes similarly:

"No policies now being considered by government hold any real promise of confronting these structural dimensions of disadvantage" (page 1368).

The importance of circumstance

From the ages of six to eighteen I got to school on foot or bike through a subway. The subway ran under a large roundabout connecting what was then one of the main roads from London to Wales and the Midlands, to the Oxford ring road.⁽²⁾ It connected the four estates divided by these dual carriageways. It was entered by steep sloping ramps, was damp, long, and usually very dark as the lighting was smashed. The walls were graffiti covered. Among the names of children I knew, or thought I knew, were nastier slogans. The National Front were strong at the time

⁽²⁾ Directions have also been anonymised somewhat.

and appended a swastika to their two joined-up initials. Swastikas are easy to spray paint. Most importantly, however, to me, the subway was curved. You couldn't see who was inside when you were going down into it. Once inside you could not see who was round the corner. Only when coming up again to the surface could you see light. And it mattered who you bumped into, depending on where you were entering and exiting from, how old you were, how small you were, whether you were a boy or a girl, black or white.

The roads divided a large council estate to the north, from the 1930s semidetached housing of my estate to the east, from the picturesque 'urban village' to the south, and the mixed development of the west. The subway connected these four corners and was where children in the 1970s and 1980s met between these different worlds. Adults often preferred to risk crossing the dual carriageways. Each morning and evening what appeared to be thousands of men cycled four abreast from the council estate round the roundabout to work in a large car factory half a mile south. Mums with prams would walk their smallest children to schools in each direction from each direction, over the surface, crossing the roads. Older children and teenagers (and a few pensioners—too slow for the roads) would go underground. There were half a dozen primary/junior schools and two middle schools. Which you went to said something about where your parents thought you were coming from and going to. Everyone I met in the subway ended up at the same secondary school at age thirteen.⁽³⁾ But by then where they were going to next (how they would add to the sediment of society) was often largely decided.

No child I knew from the large northern estate left the city after school and only a couple from the estates east and west left Oxford. The boys were some of the last to be employed by the factory in large numbers; the girls could have children or take a secretarial course (but not both). Both sexes went into 'service' in the university, three miles into town—waiting on academics and keeping tourists out of colleges, cleaning the buildings and rooms. Painting, decorating, building, and labouring appeared the only other main alternatives. The small number of children who stayed on at school after fifteen/sixteen mostly came from the southern and eastern estates. They took and largely failed A-levels—it seemed to me later—so that other peoples' children could be told how well they had done when they passed. The most common grades were Us and Fs followed by a few Es and Ds. Only a few of my contemporaries got a higher grade than this without help from a parent (in almost all cases a parent who was a teacher). But these children who failed A-levels or did poorly at age seventeen/eighteen largely avoided manual, servile, or casual work and went into town to work in estate agents, other shops, banks, and building societies. These children were at least immune from unemployment for a while, as the car factory began to close, the university started to save money by sacking its servants and cleaners, and the housing market collapse ended painting, decorating, and casual building for a while. However, the current rationalisation of the financial and retail sectors is beginning to bite. Other jobs have come, new housing has been built, and a science park has been established over part of the factory site.

Why did I begin to learn that place mattered at age twelve? Because it was then that I began to notice who came into the subway from where and by which exit they left (in effect, where they lived and where they went to school). What happened to my neighbours six years later appeared, to me, to depend acutely on children's comings and goings in the subway earlier. You did not need to read for a geography degree to

⁽³⁾ Children going to private school did not use the subway—I think they must have travelled by car.

learn that children's options in life are largely controlled and constrained by the places in which they grow up, the local expectations, resources, schools, job opportunities, child-care expectations, and housing opportunities. If you saw how the political posters coloured each quarter red, yellow, or blue with sometimes near uniformity in a street—you did not need to know there was a neighbourhood effect to voting and campaigning—neater even than the social geography. If you worked in education, the police, in health, or most obviously as an estate agent—you knew that place mattered. If you got a kicking at age twelve because you came in from the wrong entrance of a subway, you learnt quickly that place matters. There were exceptions to the monotonous predictability of children's lives from their subway journeys—but the very fact that these were pointed out illustrated their rarity: “didn't he do well”, “she let them down”, and so on.

Why, then, if it is all so obvious do we endlessly debate ‘area effects’? Perhaps we were not all lucky enough to have such neatly laid out subways in our childhoods? More likely, I suspect, we have forgotten them, consciously or unconsciously. One thing academics have in common is that they tend to be good at passing exams. The temptation to put your success at exams down to personal ability or ‘being clever’ is high. For men like me it might, for instance, make up for not being so good at football or fighting as a boy. Increasingly concentrate your solution of ‘higher achievers’ as you move through academic careers, and the pages of a journal such as this becomes full of the self-supporting writing of the children who ‘did well’ in this one area of life. We give marks to children or young adults ourselves—supposedly to reward individual talent. We can begin to believe what we once knew was a myth—that achievement is due to individual effort, not largely a product of environment.

You are very likely to know the places where I grew up through having read at least one other person's very different description of them. Alongside cars from the factory and papers from the university, a third Oxford export has been its children's books. At least two of the most famous of children's authors lived long parts of their lives within a short distance of the roundabout which I later passed under twice a day for twelve years. To my mind all of these books are partly writing about how place mattered in one way or another. None of these writings was complimentary about particular parts of the city their authors lived in and particularly about the area I walked through and came from. I will list a few below, but before you read the list, think what messages about the importance of space were you told, did you read, or were read to you in childhood? Can you recognise them, from people writing about, or at least writing in, this one city and neighbourhood?

When Charles Lutwidge Dodgson (alias Lewis Carroll), of Christ Church, Oxford wrote *Alice's Adventures in Wonderland* (in 1865) there was obviously no roundabout, there was only farmland and a quarry where the estates are now. The Oxford meadows and farmlands were portrayed in some ways as a safe place to play (although there were many other dangers to children in Alice's Victorian world). Less than half a century later the second most famous children's book to be inspired by a Thames boat trip was published. Kenneth Grahame, wrote *Wind in the Willows* in 1908. The map in the book is based closely on Oxford itself and shows the stoats and weasels living towards where the roundabout now lies. Forty years on John Ronald Reuel Tolkien wrote *The Lord of the Rings* in 1948 while living in Oxford. He lived in one of the four quarters described above from 1953 to 1968. In this children's tale the ‘world’ map clearly reflects European wartime geography, but the description of the ‘shire’ becoming corrupted reflects one view of the postwar estate building in this area (it appears in the third of the trilogy published in 1955). Finally, Clive Staples Lewis,

another Oxford academic (although he commuted between weekends to Cambridge from 1955) wrote *The Lion, the Witch, and the Wardrobe* in 1950. He lived in a house made famous through the film *Shadowlands* at the edge of another of the four quarters, a few hundred yards from the roundabout. His garden of small lakes, many trees, and the odd lamppost is now a nature reserve, although hidden from children growing up in the area. The children he described ruling over lesser species did not live in the houses his home overlooked. The parochial description I have given you above is of a place you have probably already been to in your imagination, it just looks a little different on the ground.

So where are we now? For me, given my past and my places, I am unlikely ever to be impressed by an A-level grade on its own (or even a string of As)—to believe it is much more than a signpost to your street, school, and socialisation. I am unlikely to think that if you do not have a job it is because of your personal failing rather than the choices of the employers in your area, and what in turn affects them and your luck and status when you enter that market. I am unlikely to be convinced that people in Britain do not know these things themselves—that when they choose and are forced where to live they are not expressing their intimate knowledge that place matters. I am unlikely to read a book by someone who has lived in Oxford (many famous geographers included) and not to have read something into where precisely they lived in that city. I made my mind up a long time ago about geography. However, proving that place matters to the satisfaction of others is much more difficult.

Finally, you might like to know what has happened to the subway. Around the time that the new M40 motorway was finished—through an area of outstanding natural beauty (but thankfully taking the London traffic to Birmingham away from many of the children of east Oxford)—the roundabout was reengineered. The subway was dug up and a new one built—in which from every entrance you can see through to an exit. A lot of the graffiti has now gone. Thankfully the National Front have too; although there are few new jobs in the car factory for the white men to ‘defend’ (but it is producing the new Mini car). To keep some pretence of olden days going, the university still hires a few younger, cheaper servants from the estates in preference to their more expensive parents (lower minimum wage regulations make under twenty-fives more attractive servants). Traffic lights and pedestrian crossings have been placed over the dual carriageways which so neatly divided the estates before. Some council houses have been bought, including even some of wartime pre-fabs (that I suspect Tolkien and C S Lewis despised). Despite many protests, a small council estate has been built in another of the quarters (very near to C S Lewis’s old house). Many children are now taken to school by car. Almost no men cycle to work by the road any more. And so—all in all—the lines of demarcation are more blurred and the connection between where you are and where you are going is now less clear—to me at least. But perhaps not to a twelve-year-old child growing up there today? On one of the walls of the subway in May 2001 some child has written (geographically correctly):

← good puppies this way lost puppies this way →

Perhaps I grew up in a strange place—but if that is true, place obviously matters in terms of what might inspire (or condition) you. Circumstances matter. I did not ask the authors who follow to include any biographical material. That is not something you ask in polite academic society. But what I still wonder is whether where you are born, brought up, and now live affects how you measure and interpret the effects of where people are born, brought up, and live? I hope you enjoy the articles and response that

follow and are a little persuaded by this that there is a human as well as quantitative answer to the extent to which geography matters.⁽⁴⁾

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⁽⁴⁾ As I was revising this introduction I came across a paper (Montaner, 2001) critiquing Robert Putnam's *Bowling Alone* (2000) thesis. Putnam's thesis suggests that a large part of current social malaise is the result of a decline in 'social capital', in simplified quantitative terms that some 'area effects' have decreased in their positive effects. A few of the respondents mention social and human capital. Montaner questions both Putnam's thesis and also the author's own upbringing as having affected the way Putnam thinks. When discussing area effects and area policy, who we are and where we came from matter:

"There is only a limited amount of cohesion (to which vast amounts of resources are devoted through the media, police, and the military) that working classes and subordinated racial/ethnic groups will tolerate before engaging in political confrontation with owners and the dominant race or ethnic group. Thus the efforts of today's social scientists to present social capital models that claim otherwise will prove ultimately futile, as were those of 19th Century Durkheimians [sic].

The back cover of 'Bowling Alone' shows a photograph that illustrates this idea. The photo presents a bowling team in the US circa 1950. The author is at the centre and with his glasses, higher stature and big, confident smile looks like the undisputed team leader. At his side appear two shorter white kids, without glasses, and barely smiling; at both edges of the group are two African American kids, shorter, staring at the camera, dead serious. Following the social conflict analysis presented here, and contrary to what Putnam would think, we might ask whether these African American kids would have preferred to be bowling by themselves" (Montaner, 2001, last page).

Do we care about area effects?

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Andrew McCulloch's (2001) paper on the relative contribution of neighbourhood and individual-level variables to individual-level outcomes, using a mix of British Household Panel Survey (BHPS) and 1991 Census data, raises a large number of interesting questions. McCulloch's paper contains properly tentative and technical analysis, and draws attention to the difficulties of measuring any 'area effects' given the nature of the variables available from the census. However, he concludes that, despite these possible data limitations at area and individual level, "measurable characteristics of the neighbourhood add little to our ability to explain variations in outcomes, once a full range of individual and family-level variables had been included" (page 681). McCulloch immediately concludes "The policy implications of the results are unambiguous"—that is, broadly not to support area-based initiatives (ABIs), if there are individually targeted alternative policies. He suggests that the growth of ABIs is based (probably) on the belief that "there are substantial differences between the performance of areas... these differences are assumed to be attributable to the areas themselves, rather than to the achievements and background of the people within them" (page 682). He therefore concludes on the basis of his evidence that, as there are limited or negligible area effects, the main rationale for government using ABIs is undercut. His argument assumes (1) that government employs ABIs to counter adverse 'neighbourhood effects' and (2) that there are only limited neighbourhood effects beyond the accumulation of individual ones.

While we could take up some of the data issues in McCulloch's analysis: What does he consider to be 'an area effect'? Are the measures he uses to assess such effects the best available? Is the way the BHPS sample is distributed geographically best designed for identifying area effects? Are there problems in clearly distinguishing 'areas effects' from individual, family, and other factors? McCulloch has himself raised queries in these areas in his analysis. So it is the 'unambiguous' policy implications we focus on. Here the analysis is on much shakier ground, focusing as it does on the apparently straightforward link between area effects and area policies.

This is of course a long-running debate—certainly longer than the decade suggested by McCulloch. Indeed, the current argument by Mark Kleinman (1999) and others has strong echoes of the debate in the mid-1970s querying the apparent focus on area-based policies adopted under the Labour and Conservative administrations of the late 1960s and early 1970s. The main thrust of these critiques was the problem of missed targets if deprivation was simply attacked on an area basis (Barnes and Lucas, 1975), on the grounds that such deprivation was not neatly clustered on the map and that the majority of deprived individuals and families did not live in the most deprived areas. However, it is important to recall that this phase of area-based programmes (Educational Priority Areas, Community Development Projects, etc) was largely presented as an innovative complement to individual-based approaches for areas that had somehow missed out in the general spread of affluence. Later in the 1970s these same programmes were attacked, sometimes by those directly involved, on the ground that they were too individualistic and not structural enough in their approach to the causes of poverty and deprivation (for example, Townsend, 1979). The argument about inefficiency of targeting probably contributed to the demise of these programmes, but

not unfortunately to a swing towards *more effective* individual policies for poor families or individuals or better structural or macroeconomic policies. Within a few years we were back to policies that took little interest in deprivation in either individual or area-based form.

Individual level policies/mainstream policies versus ABIs

We suspect that the present wave of area-based programmes probably comes from a similar disposition—that is, ABIs are not necessarily presented as an alternative, but a complement or supplement to mainstream and/or individual level programmes. We would concur with this approach. To argue that there is a rationale for area-based initiatives is not to argue that poverty should *only* be tackled using this kind of geographical targeting nor does it imply that ABIs are necessarily the most effective way of combating poverty. It is quite consistent to hold a view that the main policy prescription for the eradication of poverty should be through universal macroeconomic and social policies but still to see area-based policies as a useful addition to mainstream programmes. In practice, though the resources going into area-based programmes have increased, this is still dwarfed by the bulk of public funding that largely goes to individual households through the benefit system (Bramley et al, 1998). We would certainly argue that mainstream funding should be very substantially increased (for example, an increase to social security benefits to bring them up to adequate levels) and that there should be structural interventions to increase opportunities.

Moreover, ‘area targeting’ of policies does not necessarily imply a more general belief in targeted policies. In other words, selectivity at an area level does not mean subscribing to selectivity in mainstream services. In fact, one rationale for area-based initiatives is that they can be universal within an area and hence nonstigmatising to the individuals who will benefit, though ‘area stigmatisation’ or labeling remains a real issue.

Do ABIs inefficiently target deprived people?

ABIs, it has been argued, are not appropriate means for tackling deprivation as there are more deprived people living outside such areas and thus ABIs are poor targeting instruments. Poor people are undoubtedly spatially concentrated. An area distribution of spatial units (even controlling for population variation) is skewed and shows a long tail of areas where ‘deprivation’, however measured, is extreme. In the case of children ‘in poverty’, defined rather narrowly as those living in families in receipt of Income Support or Income Based Job Seekers Allowance, if you use electoral wards as a proxy for neighbourhood and divide the wards in England and Wales into quintiles, the wards in the top quintile contain 58% of the poor children but only 33% of all children. There is therefore a significant spatial concentration of poor children in 1860 out of the total of 9300 wards in England and Wales. At local authority district level 81 out of the 408 districts in England and Wales contain half of all poor children on this measure.

Why do we have spatial concentrations of deprived people? It is not simply the result of increased individual problems, but of structural changes in the employment and housing markets, coupled with some extraordinary housing allocation and dispersal policies that result in, for example, some of the South Coast seaside resorts having some of the highest levels of deprivation as a result of transfers of unemployed or other families from London. Our response is that this is a structural feature rather than an individual problem, and should be handled by removing the problem at source (reforming such allocation policies) or if these policies seemed the best available solution, then introducing some area-based remediation.

There is, sadly, considerable stability in some deprived areas, which seems relatively insensitive to measurement technique. Some areas, such as Liverpool Vauxhall, which were identified as 'deprived' in the first half of the 19th century are not doing *relatively* very much better in the 21st. The fortunes of other areas have changed. Why? If mainstream policies are the only answer, why is it that some areas are more resistant to improvement than others? For example, despite a general improvement in the economy in Britain between 1995 and 1998, there was considerable geographical variation in the extent to which income deprivation, measured as the rate of claim of Income Support/Income Based Job Seekers Allowance, had reduced (Noble et al, forthcoming). Such variation was apparent even at ward level. This is in part because areas with low numbers of unemployed people but high numbers of pensioners and/or lone parents, improved much less than areas where the claimants consisted mainly of unemployed people. Furthermore, unemployment in some areas such as the North East and Merseyside was slower to fall than elsewhere. Could this be described as an 'area effect'? And there are macroeconomic features that play themselves out acutely at a very local level—consider a total pit closure in a mining village where miners previously bought their houses from the local authority or National Coal Board, or the equivalent situation recently faced by communities dependent on the steel works at Llanwern in Wales. House values, and therefore the capacity to move elsewhere, are constrained by a whole range of reasons.

ABIs for locally delivered policies

There are certain policies that have, by their nature, to be area based, rather than directed at an individual level. Indeed, in some cases there is, inevitably, some ambiguity. Is education an area-based or an individually targeted policy? Though schools have less distinct catchment areas than in the past they still tend to draw pupils from a defined locality. Remedial education may be individually targeted but it is not clear that this is necessarily better than a general programme of improving education in an area and there is quite robust information about 'school effects' and more contentiously so-called 'contextual effects'—that peer-group and other factors are important in determining educational outcomes. Are 'school effects' or 'peer-group effects' not examples of 'area effects', where as a result of the right sort of data and analysis, we have reasonably robust evidence of their impact on pupil progress?

When it comes to child care and targeted health provision such as that in the Sure Start package, it is not clear how such policies could be delivered at an individual level and not targeted at an area level in some way. Quite apart from the question of motivation and stigma associated with such individually targeted provision, there would be access and travel issues. Moreover, research has shown that individually targeted provision such as traditional local authority day nurseries which explicitly cater for disadvantaged young children have been among the least effective forms of provision in promoting long-term development (for example, Sylva, 1994).

Area effects?

We remain unclear whether there are 'area effects'. 'Area effects' suggest that there is more going on in an area than simply the concentration of poor people. It may mean that the simple fact of concentration produces some further or compounding disadvantage. We would certainly support further research to investigate their existence. Certainly we would want better measurements of the appropriate neighbourhood factors than is provided by the decennial Census of Population. Longitudinal data must surely be the answer, but we would argue that there may need to be more concentrated sampling on an area basis than is the case with the BHPS, where there

are clearly only limited numbers of cases in any ward. Better data may be around the corner. The move in the Millennium Cohort Study to focus samples in particular areas should help.

In conclusion, there can be no doubt that poor people are concentrated spatially and that over time some areas improve, while others seem resistant to change. Mainstream policies must be the first line in raising people out of poverty, but for people living in areas which lag behind when there are economic upturns an ABI may well be an appropriate policy response. Of course, ABIs need to be appropriately assigned to deprived areas, and rigorously evaluated to provide an evidence base for successful area interventions. But do we need evidence that area effects actually exist to justify ABIs? Our conclusion is that we do not.

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Evidence-based policy and practice

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Given the current stress on the need for the development of “evidence-based policy and practice” in Britain (Davies et al, 2000), one might imagine that the recent emphasis on putting ‘neighbourhood’ at the centre of policy-thinking (Maclennan, 2000) would have been informed by a systematic consideration of previous evaluations of the efficacy, or otherwise, of different forms of neighbourhood intervention. Certainly it is the case that neighbourhood-based approaches to tackling poverty and social exclusion in the United Kingdom are not new. The New Deal for Communities, the formation of Employment Zones, Education Action Zones, and Health Action Zones, all have a long lineage in the development of British urban policy. An exhaustive list of such policies would take up most of our 2000 words but would certainly include: Educational Priority Areas, Community Development Projects, Comprehensive Community Programmes, Inner Area Partnerships, Enterprise Zones, the Urban Development Corporations, Garden Festivals, City Action Teams, Urban Regeneration Grants, City Challenge, the Urban Partnership Fund, the Urban Regeneration Agency, City Pride, and the Single Regeneration Budget (Pacione, 1997). However, the truth is that despite the myriad of neighbourhood-based policy initiatives which have taken place (not to mention the billions of pounds spent on them) there is little in the way of reliable evidence on the efficacy, or otherwise, of area-based approaches to the alleviation of poverty and associated detrimental outcomes. The reasons for this are both *methodological* and *political*.

At the level of methodology the tradition in the United Kingdom has been to focus on national-level survey data which take individuals and households as the main units of analysis rather than neighbourhoods. This tradition has been coupled with another—a focus on cross-sectional designs rather than on (more costly and more complex) longitudinal studies which would be able to decipher how neighbourhoods have changed over time. This combination has inevitably led to analyses which focus upon individuals and households at one point in time rather than on understanding the articulation of individuals and households within a broader set of local contextual processes and how these change over time. When neighbourhoods have been studied the analytic focus has tended to be on poor places in and of themselves rather than on neighbourhood dynamics in general. This is a major problem because it is often issues of propinquity which are crucial. The intersection of housing markets, schools, environmental factors, transport, the location of particular private and public services, employment opportunities, and so on mean that the fortunes of particular neighbourhoods are as much to do with actions (or inactions) of rich people as they are to do with the actions (or inactions) of poor people.

At a political level these methodological problems have contributed to two major failings. First, the evaluations of neighbourhood interventions which have taken place have often been ill timed. The short-term political imperatives of demonstrating what has been done and, crucially, of promoting the spectacle of the intervention has often led to evaluations which are overly concerned with matters of process and short-term aims and objectives. Longer term evaluations of the success or otherwise of particular neighbourhood interventions have not taken place. Do we know how neighbourhoods subject to different kinds of intervention over the years have fared in the medium to long term? An examination of various indices of small area deprivation suggests that

poor places have tended to stay poor and that rich places have tended to stay rich over quite long periods of time. Certainly we have no overwhelmingly robust evidence which would lead one to automatically argue the case for the efficacy of neighbourhood-based interventions. The second political problem—and this despite the mantra of ‘what counts is what works’—is that, without any tradition of systematic reviewing, meta-analysis, or any clearly articulated hierarchy of research evidence within neighbourhood research in the United Kingdom, it has become possible for one or two studies to gain a disproportionate amount of political influence. The work of Alice Coleman (1985) on urban design is perhaps the best known example of this happening under the influence of the New Right, but under New Labour the recent work of Ann Power (for example, Power and Mumford, 1999)—although certainly not without value—is perhaps the best example of how work based upon a particular standpoint, using a limited range of methods, and carried out within a number of specific contexts can be subject to gross overgeneralisation. Without a broader evidence base it becomes too easy to claim that one has been able to identify general trends on the basis of limited, local, and often qualitative studies. We certainly need work like that undertaken by Power and her colleagues, but it needs to feed into a much wider set of studies.⁽¹⁾

It was thus within this context that we came to read the paper by McCulloch (2001) which claims to be able to demonstrate that we should be “inclined to limit neighbourhood-level interventions wherever one could as readily...realise macroeconomic, household-level, or individual-level interventions” (pages 681–682). Now this is a conclusion with which we both have a strong intuitive political sympathy. However, it is also a claim which is made far too strongly on the basis of the analysis presented. This is not to say that the paper does not possess a number of strengths. First, it shows a keen awareness of a wide range of existing research work within this area and is keen to demonstrate how it articulates with existing knowledge. Second, the British Household Panel Survey is a rich source of data which, although focused on changes across a representative sample of individuals and households rather than neighbourhoods, does have the great advantage of allowing one to track changes over time. Third, the paper represents yet another application of multilevel modeling techniques in the social sciences and, as such, it should be welcomed as a brave analytic attempt to begin the difficult task of disentangling the influence of individual and contextual effects—an agenda which has had so much influence in developing understandings of social processes in educational, criminological, and health research over the last decade. However, we also have a number of concerns about the analysis which would lead us to be far more circumspect about the policy conclusions being drawn. The paper is reflexive and recognises many of the methodological limitations of the analysis presented. However, some of these limitations are forgotten when it comes to policy prescriptions. At the level of methodology we have a number of concerns, some of which raise perhaps more fundamental philosophical issues. We summarise some of these concerns in what follows.

First, we are concerned about the use of the Townsend index as a measure of small area deprivation. All of the four variables in it are characteristics of the individuals and households in an area and as such they do not tell us much about the area per se—the influence of neighbourhood on individual outcomes surely has more to it than the aggregated characteristics of the population that lives within it. The influence of place on individual outcomes is a far more subtle function of, *inter alia*, the physical and built environment, the location of services and facilities (both good—toddler drop in

⁽¹⁾ Many of the issues identified here are currently being tackled head on by Ade Kearns and Ray Forrest in the establishment of the new ESRC Neighbourhood Research Resource Centre (NRRC)—a node in the ESRC Evidence Based Policy Network.

centres—and bad—chemical factories), cultural images, and so on, as well as the people who live within an area. The new Department of the Environment, Transport and the Regions Index of Multiple Deprivation developed by Noble and others at Oxford—although by no means perfect—provides a better, more up-to-date, and more genuine measure of area characteristics and it would be interesting to see the analysis repeated using this. It would also be interesting to experiment with other classifications of localities such as the Office for National Statistics classification of wards or the ACORN classification.

Second, the multilevel modeling framework used here relates together just individual and area-level characteristics without any consideration of the mediating influence of the more proximate social influence of the households within which individuals are also nested. Variation in household type is included as an individual-level control but it would have been interesting to see if the results differed within a model specification with three levels: individual, household, and neighbourhood. Relatedly, there is also some confusion in our minds about the specification of some of the models more generally. In particular, it is not always clear what are individual characteristics, what are area characteristics, and what are outcome measures. For example, unemployment appears in all three! Surely with this degree of overlap it is almost inevitable that much of the variation will be picked up at the individual level leaving nothing at the area level or vice versa?

Third, the nature of neighbourhood effects, may well be highly contingent upon the outcome measure one examines. In particular, outcomes which can be more readily influenced by sociocultural factors, over and above those which emerge from the characteristics of local populations and/or spatial variations in social policy, are more likely to possess significant neighbourhood effects than are any of the outcome measures used in the paper. A good example of the sort of variation in outcome we are thinking of would be area variations in teenage conceptions and abortions in England. Ongoing work by Bradshaw suggests that there exists fantastic area variation in the propensity towards conception amongst females aged 15–19. Some of this variation can, of course, be accounted for by variations in deprivation at both individual and neighbourhood levels. However, significant outliers remain which appear to be associated with the spatial factors not picked up by deprivation measures—factors such as the location of young men in army camps and cultural practices which have resulted from a long social history of particular types of work. These real ‘locality’ influences also seem to interact in complex ways with the real contingencies of policy implementation at a local level—for example, variations in sex education and/or the accessibility of contraceptive advice and/or abortion services.

Fourth, wards are not neighbourhoods. This is explicitly recognised in the paper but then largely ignored. Neighbourhoods, if they have an influence on individual outcomes, are, in general, far more proximate spatial entities. Not only are wards too big they are not, in general, the focus of any neighbourhood policies. But perhaps there is a more general issue here which relates to the immense conceptual and operational fuzziness of the notion of a neighbourhood. Neighbourhoods are, to use the argot of realist approaches to the social sciences (Sayer, 1984, pages 126–127), inherently *chaotic concepts* in that they possess a disparate and varying range of causal powers deriving from the mix of real objects and relations which constitute them. This might be analytically acceptable at a descriptive level but is highly problematic within statistical modeling exercises which attribute unitary causal powers or liabilities to such entities.

The analytic and policy questions that McCulloch has asked are very important ones. However, if we are to take the rhetoric of evidence-based policy at all seriously in

this area the methodological tools, data sources, and philosophical positions we need to develop are not the ones utilised here. The appropriate development of these presents us all with a very worthwhile challenge.

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Is there a place for area-based initiatives?

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A quarter of a century ago, policymakers embraced a number of policy initiatives which situated interventions in so-called 'areas of deprivation'. At the same time there was little action to prevent the widening of inequalities across individuals. In those days there was little other than ecological data linking indicators of poverty and other adverse outcomes, often given the portmanteau label of 'deprivation'. The poor outcomes and the poor resources clustered in 'poor places', but one could not be sure that they were correlated in individuals. It was little understood whether the targeting of 'black spots' would reach those in most intense need or cut out particularly noxious points of 'social infection'. There was speculation about adverse properties of the environments. The missing mechanism might be poor physical environment ('miasma'), a depressed local economy, or something in the social environment—crime, poor government, poor services, low morale, for example. Because these problems were thought to inhere in the locality, they implied targeting remedies on the place, rather than on the individuals, whose multiple deprivation might be fallaciously inferred from the area-based data.

The debate continues into the 21st century, though there is now rather more evidence available to the policymaker, as well as a greater government commitment to tackle poverty at both national and local levels. Andrew McCulloch's (2001) study leads him to advocate putting priority on people rather than on places. He cites a number of regression analyses where individual-level data are included with community-level data as predictors of health or deprivation and the individual effects are found to dominate, as in his own results. For further references using the Office for National Statistics Longitudinal Study see Joshi et al (2000). The statistical power of ward-deprivation indices is generally more or less swamped by similar information measured at the individual level. Does this lead to the conclusion that area-based policy is inappropriate, because these area effects are negligible?

Sources of contextual influence

Whether there may be independent influences at the 'area' level, once allowance is made for individual factors, depends on several things. As shown in McCulloch's paper, it depends on the outcome under consideration. It may also vary according to the definition of the locality, area, or district under consideration. For different individuals different sets of boundaries may be relevant. Another factor is the duration of residence in a particular locality and the stability of its disadvantaging characteristics (Sloggett and Joshi, 1998a). The social composition of an area would itself have an effect over and above that of individual characteristics if the disadvantages of individual adversity were compounded by the proximity of others with the same characteristics. There is a greater chance of finding a link between area-level predictors and individual outcomes if the variables measured at the area level are more than mere aggregations of the same variables on individual characteristics in the model. Features of the natural or built environment, climate, pollution, accessibility of shops or services, or crime rates would be examples of conditions shared by all inhabitants, rather than social class, unemployment, or overcrowding, which would initially be measured at the level of the individual person or household. Failure to find (much) association between census indicators of local deprivation and adverse outcomes does not mean there is no influence of more truly contextual

community-level variables which are not easily derivable from a source like the census (Macintyre et al, 1993). Thus, though such factors may indeed affect spatial patterns of disadvantage, they may not be easily detected and are seldom readily available as nationwide data. The multilevel framework adopted by McCulloch, and others (including Wiggins et al, forthcoming), captures otherwise unobservable area effects at each level into which the data are organised, and can reveal geographical variation not apparent in single-level models. Another methodological note is the blurred conceptual distinction between individual characteristics and those of the location. The unemployment, or occupation of an individual reflects, at least in part, the context of the local labour market, and conversely, participation in the community (as we measure it in survey data) is actually based on individuals.

Once the important influences of social inequality at the individual and household level have been taken into account, what area effects have been found? Their low profile should not be read as complete absence. The champions of spatial phenomena will point to McCulloch's finding that whether a person dislikes their neighbourhood is significantly related to the ward-deprivation score, and also shows a significant effect on health status for women, and is on the verge of it for men. Although my previous work (Sloggett and Joshi, 1998b) is correctly cited as having found no significant ward-level effects on mortality, I would not wish to deny having found some significant area-level variation in health and deprivation outcomes. At the ward level, these include: female mortality when one of two census years' deprivation score is included, (Sloggett and Joshi, 1998a), long-standing illness, birth weight, teenage motherhood, solely registered births (Sloggett and Joshi, 1998b), and current symptoms (see Joshi et al, 2000); and, in several studies of long-standing illness, area 'effects' are found at district level as well (Wiggins et al, forthcoming). In all these findings, the coefficients were small, and the individual-level predictors remain dominant. One of the contextual forces not well specified in census data is social cohesion, or social capital, proxies for which were included in the clustered Health and Lifestyle Survey (HALS, Joshi et al, 2000). Social capital appears to play a part in the explanation of ill health, but not to be a panacea.

What makes area initiatives appropriate?

Does the dominance of individual effects mean that area-based policies are redundant?

They surely suggest that area-based initiatives cannot substitute for policies targeted on individuals. The question is how far can area-based interventions usefully complement an aspatial antipoverty or public health programme? The degree to which they can effectively or equitably complement individual-based policies like cash benefits depends upon a number of factors, discussed below.

Concentration of the target group in the target areas

The equity and 'target efficiency' of relying solely on area-based interventions for a given problem would depend on how many of the clients were actually in the target areas. If all of them, and no one else were inside the areas, the universal and the localised policy would be identical. However, in our samples, and on the sorts of indicators we have been using, more than half (55% in 1981, 51% in 1991) the 'deprived' (of homeownership and car access) lived outside the wards containing the most deprived fifth of the population. Of the low-income group in our HALS study 71% lived in the better-off four fifths of wards (Joshi et al, 2000). It is possible that for some problems (such as poor service provision, or flood damage of homes, for example) the problem might be contained within specified areas. Localised action would be more appropriate the more localised the problem.

Mobility

The appropriateness of an area intervention is also affected by how long people remain in one place, and in the deprived states identified in a particular snapshot. Long-term deprivation is of greater concern than a transient state; likewise, long-term residence in deprived areas than high population turnover. In the latter case, an area-targeted programme would be delivering its benefits to a revolving set of people. If the revolving set all shared disadvantaging characteristics [or came from other deprived areas, as many seem to do (Sloggett and Joshi, 1998a)] this might not be self-defeating, and could be a way of spreading the benefits around, but if the intervention resulted in 'gentrification', whereby better-off newcomers moved into the improved environment, displacing the original inhabitants without compensation, the policy could backfire.

The site specificity of services

Even if there is no underlying geographical origin to the pattern of disadvantage, some of the ways of redressing it involve local operations. A tax credit or a pension can be administered nationally, but child-care facilities, schools, hospitals, transport, and other public services are inherently located at the point of delivery. It may be argued that the implementation of these policies should involve prioritisation of locations according to criteria of local need. The general failure of the literature to find much intensification of individual health disadvantages in places where the deprived population congregates, does not mean deprived areas cannot be treated as 'collecting points' of target clientele. But McCulloch's finding of a negative interaction of area and individual deprivation for women's health status [similar to one found by Sloggett and Joshi (1998b)], which suggests that for some outcomes it may be worse to be poor with affluent neighbours rather than other poor ones should sound a note of caution. Some alternative strategy needs to be in place to reach out to the less well off, 'isolated' in more affluent areas.

Economies of scale in clustered interventions

Area-based initiatives may be efficient, though not equitable, if there are gains to the delivery of services in clusters, or if the operations need to exceed some critical mass to be effective. A good reason to expect an area-based initiative to reap economies of scale would be if it takes advantage of the possibilities of complementarity between different elements of the intervention, say on housing, education and employment. This may not be happening as much as might be thought, because different parts of Whitehall have launched their own Action Zones with different policy emphasis (Heath Action Zones and Education Action Zones, for example) in different places. To the extent that these initiatives coincide and are coordinated locally, this could be a justification for their existence. However to the extent that they are not, one might draw comfort from the fact that the net of area-based action is spread wider than it would be if all the initiatives were confined to the same places. The process may in the long run be more equitable if there is learning to be gained by starting in pilot areas, and implementation follows elsewhere. Though if the policies turn out to be replicable they would probably still be 'area based', thus leaving the problems of people dispersed over less deprived sorts of habitat needing a different sort of attention.

Community participation

The harnessing of local community participation can be an important element of 'area-based' initiatives. The policy is not just 'top down', but mobilises energy and commitment at the 'grass roots' and may realise beneficial externalities within the community (or possibly even reduce negative externalities with neighbouring communities, on the 'black spot' theory). Community participation makes such policies

less easily replicable, but it also constitutes a good reason for focusing on particular places, particularly if community development as well as poverty prevention is an objective.

Area-based policies in their place

To take the example of health, Macintyre et al (1993) have argued that the reduction of health inequalities should involve action to improve individual health behaviour as well as improvements in the general structure of economic opportunities. They argue further that improvements in the health of the disadvantaged could not wait (or depend) on the latter. They argued that action, 'on the ground' at the area level, was the way to ensure immediate progress. The argument made here, which largely reiterates McCulloch's, is that the overall distribution of income and opportunities is an essential determinant of many aspects of the quality of life, including health. Action in Areas makes much less sense without complementary action at the national level and coordinated at the local level. Policies towards Places are not redundant, but they should operate within a context of Policies towards People.

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On reinvented wheels

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As I get older, so 'cyclical' models of history come to seem ever more appealing. Amidst the on-rushing novelty, familiar themes and debates from the past reemerge. And here is another example. In his careful analysis of the impact of contextual effects on deprivation and social exclusion, Andrew McCulloch (2001) notes that area-based policies are currently in governmental vogue in the United Kingdom, and that "behind these initiatives lies a decade-long debate over how effective area-based policies can actually be" (page 667). But, in fact, he underestimates just how old the debate actually is. In fact, he has (inadvertently?) recapitulated/rediscovered a major policy debate of the late 1960s and 1970s: do area-based policies actually do what they are supposed to? Just as the Blair government's new-found enthusiasm for area-based initiatives echoes the initiatives of (especially) the Wilson and Heath governments, so McCulloch's sceptical discussion harks back to the criticisms voiced over quarter of a century ago. Consider ...

Plus ça change

In the late 1960s and early 1970s, we were bombarded with a range of area-based initiatives aimed at the alleviation of poverty and disadvantage (Higgins et al, 1983). Early initiatives pathologised disadvantage, and emphasised the existence of, and need to break, 'cycles of deprivation' operating within particular families and neighbourhoods. The 1967 Plowden Report resulted in Educational Priority Areas (EPAs). Reactions to Enoch Powell's infamous 1968 'rivers of blood' speech included the Urban Programme and the 'action-research' Community Development Projects (CDPs). Careful concentration of resources in deprived neighbourhoods, it was felt, would lead to significant improvements in the lives of the most disadvantaged individuals and families, lifting them out of poverty without having to resort to some form of individual targeting (this at a time when memories of the 1930s and means testing were still fresh in the minds of both the public and policy elites).

By the mid-1970s, however, there was growing criticism of the area-based approach. Critics pointed out that money spent on poorer areas often failed to reach the poorest individuals within those areas. Improving facilities in EPA schools, for instance, often seemed to give an advantage to children from relatively more affluent backgrounds in the locality, rather than (as intended) those from the most disadvantaged homes. Other critics (some from within government programmes, as in the case of the CDPs) argued that to tackle deprivation, it was necessary to tackle root causes, not just area manifestations. In any case, many (most?) 'deprived' individuals and households did not live in designated 'deprived' areas: targeting areas rather than people meant ignoring those outside the areas. Area-based policies, it was increasingly argued, were not necessarily the most effective way of reaching, and helping, those in greatest need.

... plus c'est la même chose

And, a quarter century later, here we are again! The New Deal for Communities, Employment Zones, Education Action Zones, Health Action Zones... it all sounds strangely familiar. And, not surprisingly, the same, sceptical, case can be made. To some extent, McCulloch makes it here—though he does not make mention of the (quite substantial) debates of the 1960s and 1970s. If only policymakers (and policy analysts?) had a sense of history...

What now? Can the baby stay in the bath?

McCulloch is quite right, therefore, to raise doubts about the appropriateness of area-based 'solutions' to deprivation and social exclusion. To some extent we have been here before—and the past record is not encouraging. But does the combination of the past record and McCulloch's own, contemporary, research, suggest that area-based initiatives should be consigned to the social policy dustbin? I am not so sure. There are still several reasons for not (yet) throwing the area policy baby out with the (contextual effects) bathwater.

Reason 1: political pragmatism

We should not underestimate the symbolic impact of area-based policies in an area-based electoral system. Britain's first-past-the-post plurality electoral system, based as it is on winner-takes-all competitions in 659 separate constituencies, almost requires parties to think about the spatial consequences of their policies. To win power in Westminster, a party must win a plurality of the votes in a majority of the constituencies. Just being popular is not enough. You must be popular in the right places. And that may mean showing residents in those places that you have their interests at heart.

As she returned, victorious, to Conservative Party headquarters in the small hours of election night, 1987, Mrs Thatcher told her cheering party workers not to forget 'those inner cities' (see Robson, 1988). This was not a sudden discovery of society (no sentimentalist she!) Rather, it reflected the Conservatives' rather poor electoral showing in the major cities: despite success elsewhere, the party had lost seats in the major conurbations. A decade later, similar electoral considerations are likely to be circulating in the minds of Labour strategists. Labour traditionally does well in deprived communities. However, since the emergence of the 'New Labour' project in 1994, with its emphasis on winning support from middle-class 'middle England', there has been a growing concern that Labour's traditional supporters might become increasingly alienated from the party (Pattie, 2001). Symbolically, it would have been hard for New Labour in power not to implement policies that would be most visible in Labour-voting areas. How else would they counter the charge that they had neglected their heartlands?

Nor should political pragmatism be knocked (at least, not too much) as a motive. In the British electoral system, winning is everything: parties out of office have no chance to put their plans into practice. If the cost of insufficient pragmatism is being out of office, then that is arguably too high a price to pay for politicians who genuinely want to make a difference to people's lives.

Note by the way, that this is a form of contextual argument. It is based on a growing body of research which shows that voters take note of what is happening in their home areas when deciding how to vote (for example, Pattie and Johnston, 1995; Pattie et al, 1997). However, the important point of pragmatism is this. Whether or not there are contextual effects in deprivation and social exclusion is potentially irrelevant to voters' calculations regarding how their localities are faring. What matters is what they see around them—and investment on the ground in their areas may pay electoral dividends by convincing them things are going well, even if there is no underlying social process to justify area-based investment. In other words, the argument that "concentrations of deprivation give rise to problems greater than the sum of its parts" (McCulloch, 2001, page 667) is necessarily not "*the* underlying rationale of area-based policies" (page 667, emphasis added): it is only one of several different possible rationales.

Reason 2: reaching the most (and the right?) people?

Despite the relative weakness of the contextual case as outlined in McCulloch's paper, area-based policy might still be a sensible approach if the areas targeted contain most

of the individuals the policies are intended to help, and if it can be guaranteed that the individuals in greatest need would be the ones to benefit most from the policies. It may not, in fact, matter if the copresence of large numbers of deprived, or socially excluded, individuals in an area proves a further disadvantage for the people living there, over and above their individual problems. Even if there is *no* contextual effect, the targeting of resources in particular areas may still be a cost-effective way of reaching individuals. But, despite its careful analysis of contextual effects, McCulloch's paper addresses neither the volume of socially excluded individuals in target areas nor the (even more important) issue of policy outcomes.

Here is an example where the experiences of the 1960s and 1970s would prove instructive. The key problems identified with area-based policies then were that: (a) most deprived individuals did not live in the places focused on by area policies; and (b) most of those in the target areas who benefited were not themselves the most deprived. In other words, area policies thirty years ago failed because they did not reach most of those in need. The crucial test was in terms of outcomes. What did the policy achieve on the ground? Thirty years ago, the answer was 'not much'! Can we expect any different today? I am entirely in agreement with McCulloch's closing argument concerning which policies might be appropriate—but I am not sure how his earlier analysis advances that debate.

Reason 3: measuring the problem

Although I am in overall sympathy with the modeling strategy McCulloch follows, I have a few specific doubts about the details. I am not sure his case is cast-iron yet. The model A equations reported in tables 2 and 3 give a sensible baseline. The model B equations, adding in a range of individual attributes, still find significant—albeit, not surprisingly, reduced—contextual effects for some of the dependent variables: in particular, for employment status, health status, and disliking the neighbourhood. What is striking to me is that, of the various measures of individual adversity analysed here, these are exactly the ones most likely to have a 'contextual' dimension. That said, given the model B equations do suggest a contextual effect for individual unemployment, including unemployment as an individual-level control in the other equations is setting a particularly hard hurdle for contextual effects to jump: controlling for individual unemployment must control, to some extent, for aspects of local context.

It is the model C equations that really knock the contextual effects argument: ward deprivation has an effect only for the 'dislikes neighbourhood' variable. But—and here I do have a problem with the modeling strategy—there is surely some circularity in the argument here. By controlling for individual past experience, it may well be the case that McCulloch is also controlling out contextual effects! For, if contextual effects operate, why should they just operate in the present? So, for instance, if individual health status is affected by contextual factors, controlling for health status in the past is likely to actually control for past context! The test is not as conclusive as it seems.

Where does this leave us?

At a time when government policy is changing, McCulloch has sounded an important sceptical note. Rather than targeting areas, he argues, policymakers might be better advised to target individuals, and the processes that produce social exclusion. I must admit I suspect he is right in his prescription—but I am not absolutely sure he is right in his diagnosis. As I argue above, the key issues are (a) policy outcomes and (b) correctly identifying individual and contextual effects. The paper makes a decent stab at the latter, but says nothing about the former.

From an academic perspective, again I have much sympathy with McCulloch's approach. There is a lot (far too much?) of casual talk about contextual effects in the literature. As Gary King (1996) suggested a few years ago, however, it is important to try to account for apparent contextual variations, rather than simply to identify and celebrate them. McCulloch certainly falls into the King camp on this, and I applaud the effort. That said, arguing for the preeminence of individual-level effects by adding individual-level controls which themselves seem to be in part contextually determined does not, ultimately, convince. I suspect there is still a baby in the bath!

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Multilevel modeling might not be the answer

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Introduction

I once argued with a well-known professor of quantitative human geography. He said that one thing all academics have in common is an ability to pass exams. Perhaps then, I should confess that I *was* once taught a useful trick for passing geography exams and that I am going to use it in this response to Andrew McCulloch's paper (2001). "Writing geography essays is easy" (they told me at school) "if they ask whether you agree with a statement, just write a response which says yes... and no". At university this advice was broadly endorsed, with the added proviso that "you should reference someone who has already said yes... and no". I was asked to make a response to McCulloch's paper and also to the broad question as to whether place matters? Yes... and no.

Yes, because I agree with his broad conclusion about macroeconomic policies being the means to tackle poverty, deprivation (and its associated poor health), and yes because I think that place does matter. But no, because I think he may have reached his conclusions via a problematic route, or rather, a problematic technique. In the rest of my response, I will build an argument around the specific relationship between place, deprivation, and health, because this is the field in which I work primarily—but I think that my arguments may be extended into the wider 'place' debate. Also, please note that since my colleagues and I have used the technique and approach which Andrew adopted to research the same kind of questions, I would like this to be seen as much a critique of my own work and the field as a whole as it is a response to McCulloch's paper.

I have three points to make: (a) that multilevel modeling may have reached its limit as a means to developing our understanding of spatial inequalities, (b) that geography is absolutely key to understanding and tackling inequalities in society, economy, and health; and (c) that this, in turn, explains why macroeconomic policy is the best means to tackle those inequalities.

What is multilevel modeling and what does it ask?

McCulloch provides a comprehensive statistical definition of multilevel models in his paper and I do not need to echo that. In simple terms, multilevel models are a tool for exploring variation in some aspect of a population where that population can be conceptualised (or has been sampled) as a hierarchy—individuals resident within neighbourhoods, nested in towns or cities, within counties, for example. The purpose of the multilevel approach is to quantify relationships between the variance within the population and within each hierarchical level. The classic application in the health inequalities literature is to determine the proportion of variance in individual risk of poor health which can be associated with individual characteristics and that which can be associated with residence in one or more of the hierarchical levels (areas). This constitutes the classic 'who you are, or where you live?' type investigation of the determinants of ill health. McCulloch has followed this route, although he is not primarily concerned with health as an outcome.

Generally, once the individual characteristics are 'controlled for', we try to 'explain' any remaining variance statistically ascribed to areas by including variables which describe features of the areas. If a variable describing a characteristic of an area reduces

the variance, we assume that this feature has an influence on the health of the individuals who live within the area, over and above their own characteristics. Furthermore, many examples of multilevel models (including McCulloch's) try to describe characteristics of the area using measures based on the aggregate characteristics of the resident individuals. Townsend deprivation scores, proportion of residents in social housing, unemployment rates, and levels of car ownership are all common examples of this. These variables are presented as measures of the neighbourhood 'character'. Whilst some researchers have found that these area-level measures explain (statistically) some variation in health amongst individuals, the sizes of the 'area effects' measured are always very much smaller than the variance explained by individual characteristics.

Why is multilevel modeling not appropriate here?

It is important to understand where the multilevel modeling approach came from. It found fame through development for studying schools and their pupils. Here the hierarchy might be something like pupil, within class, within year group, within school, within educational administrative unit (or sector). In this field, where the hierarchy is real and fixed to a much greater extent, it proved to be a brilliant tool for working out which characteristics of pupils, schools, and administration were most important for determining educational success. However, I am increasingly convinced that its application to health and other geographies may be flawed.

In all applications of multilevel modeling to spatial inequalities (including mine and McCulloch's) we are required to believe that (a) people live out their lives within a fixed spatial hierarchy, that (b) we can identify and quantify that hierarchy, and that (c) this hierarchy will be appropriate for our whole sample population. None of these warrants any confidence—something which McCulloch alludes to in his paper, but which he is forced to ignore to pursue his technique. Whereas there is no doubt which school or class a child belongs to, understanding and defining hierarchies based on neighbourhood, or 'area' is almost impossible. Geographical analyses of this kind necessarily use fixed spatial units (McCulloch uses wards), and we have all been forced to argue that these are broadly congruent with neighbourhood, and that this is also the level at which any 'area effects' on health operate. This is, of course, not really true because neighbourhood is more a social construct than a spatial one and its extent and nature will vary, even for those who are physical neighbours. The multilevel approach cannot (yet) handle this basic geographic concept. It is something which many other less complex quantitative techniques cannot handle either, but the difference is that they do not pretend (or depend on being able) to do so.

Multilevel approaches ask us to make a formal distinction between characteristics which are individual and those which are area based and in the next section I want to argue that this is a step backwards in terms of our understanding of how people and place are related. We can think about unemployment as an individual characteristic for example, but Britain's *geography* of unemployment and how it operates a differential impact on people are only really made clear when we understand the relationships between an individual's employment status, their location, and the labour market which exists there. Edward Soja (1980), David Harvey (1989), Manuel Castells (1977) and a myriad of others knew that social processes become etched in space. Their understanding of the relationship between individual and area is the understanding of 'place' which seems to be missing from work like, and including, McCulloch's.

What are we missing?

I argue that the multilevel approach encourages us to throw away all this 'geography' and focus on what is left. It seeks to 'control' for the distribution of people across space to see what geography remains afterwards. But the distribution of the people *is* the

geography. You cannot have a deprived place without deprived people, and it is social and spatial processes which bring deprived people together, hold them together, and continue their deprivation. I wonder if it really matters whether people living in a deprived place are marginally more likely to be ill than if they had been living somewhere nicer—the point is that they were always very unlikely to live anywhere nicer. There are no examples of neighbourhoods in Britain in which massively deprived residents enjoy fantastically high levels of good health.

Although it has been exciting and revealing to develop and apply multilevel analyses of Britain's sociospatial inequalities I think it has reached a point at which its utility has been eclipsed by its shortcomings. Perhaps as the technique develops and as the datasets we fuel it with improve, and it becomes capable of handling more sophisticated notions of place, it will become relevant again.

Why geography is important

I have selected three items of evidence to build on this argument and show why I think geography is crucial in understanding and tackling health inequalities. Dorling et al (2000) present an analysis of the patterns of poverty and mortality in London across a 100-year time span. In that work we took measures of poverty from a survey of London by Charles Booth from 1896, and compared them with measures of poverty from the 1991 Census, using a common geographical basis. We found that the two patterns were very similar ($r = 0.73$), despite the passing of 100 years, and therefore the fact that the people in each survey were completely different. In this example, then, the *geography* of poverty in London transcended the individual populations. But this does not mean that we have identified 'area effects'. Instead, the work captured the persistence and stability of the social and economic processes and policies which construct (and are constructed by) the city, and which help to maintain the spatially hierarchical basis of our society. Macroeconomic processes and structures are written at a local-area scale.

My second example is the seminal work by Paul Willis, *Learning to Labour* (1977). In this text, Willis documents the day-to-day development of boys as they move through and out of school. He traces how they acquire their identities, attitudes, and subsequent opportunities and it makes for an explicit account of how identity, neighbourhood, community, and wider economy are mutually constructed. Willis's book is an elucidation of the dialectic relationship between place and identity. This study shows how important place is in the acquisition of a class identity and I argue that exactly the same processes could produce a 'health identity', but that understanding these processes becomes impossible if we impose an artificial distinction between individual and area.

The third example serves to draw all this together. In autumn 2000 my colleagues and I (Mitchell, Dorling, Shaw) published a report which tested out McCulloch's assertion that macroeconomic policy would be an effective means of tackling poverty and inequality in health. Like McCulloch, my colleagues and I based our hypotheses and models on the individual as the site and beneficiary of fiscal intervention to improve health. The report explored what might happen to the geography of mortality in Britain if a government delivered full employment, the eradication of child poverty, and a mild redistribution of wealth. Results (measured in deaths prevented before the age of 65) showed how more than 11 000 people per year might survive as a result of the policies. They also showed that many of these lives would be saved in areas of the country where mortality rates are currently highest but also showed benefits across the whole country. Poverty is endemic in Britain.

Through each of these examples, I am trying to illustrate that policies to target ill health (and poverty or deprivation) on an area-by-area basis will fail, both because 'area' per se is not the direct cause of poverty and because the selection of areas to target inevitably excludes the majority of poor communities and neighbourhoods. They also show how even small-scale geographical inequalities in health and wealth are related to wider social and economic structures which bind individual and area characteristics together. We should not try to separate individual and area to study these inequalities and we should not focus explicitly on area to try and tackle them.

Conclusions

McCulloch's discussion section provides a really excellent review of the possible need for balance between local and national policies for improving health and in fact, his conclusions do not suggest a particularly strong rejection of place or geography in general as being key to this debate, even if the implicit assumptions of his chosen technique do so. I think McCulloch's paper reaches a reasonable conclusion: tackle poverty and poor health via macroeconomic interventions aimed at the individual. Social and spatial processes ensure that the beneficial effects *will* be felt most amongst poorer communities and neighbourhoods—they will 'naturally' target the areas most in need, but they will target *all* of them. Let us concentrate on building what we know about social and spatial processes, and how they control where people live and what kind of lives they have, into our statistical techniques, rather than 'controlling' them out of the model. Then we will really see how much place matters.

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Unemployment, nonemployment, and labour-market disadvantage

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Introduction

This response addresses the question ‘how much does place matter now?’ with particular reference to unemployment, nonemployment, and labour-market disadvantage. The analyses presented by Andrew McCulloch (2001) show that in terms of unemployment, individual characteristics are of paramount importance in accounting for deprivation at an area level, but there is also some evidence that neighbourhood conditions play a role in shaping outcomes.

In the first section of this response, recent evidence on spatial patterns of labour-market disadvantage is reviewed, with particular reference to: issues concerning the measurement of unemployment and labour-market disadvantage; competing explanations of spatial variations in unemployment and nonemployment; and the ‘local’ orientation of those most disadvantaged in the labour market. In the second section, the associated implications for policy are considered, and the question of whether there is a role for a local dimension in policies designed to combat labour-market disadvantage is addressed. Recent trends in policy are outlined, and the possible components of a local employment policy are discussed. Concluding thoughts are presented in the third section. Here, the complexity of labour-market disadvantage is highlighted and the difficulty of ascribing labour-market disadvantage to specific and/or simple explanations is outlined.

Evidence and reflections on spatial patterns of labour-market disadvantage

Measurement issues

Unemployment has long been one of the most widely used measures of economic and social disadvantage. However, different measures of unemployment in widespread use cover different, but overlapping, populations, and many people outside formal employment who would like work are not captured by conventional unemployment statistics. In recent years there has been increasing recognition that unemployment is only a partial measure of joblessness and labour-market disadvantage, and arguments have been put forward for the use of broader measures of unemployment and nonemployment (Green and Owen, 1998). A number of empirical studies have shown that there is greater unevenness in nonemployment than in unemployment.

In relation to the question ‘how much does place matter now?’ it is relevant to note that measures of unemployment/nonemployment/disadvantage may themselves be distorted by geography. Ross MacKay (1999) has observed that the greater the degree of labour-market disadvantage in an area, the less appropriate is unemployment as a measure of labour-market slack. Examining the relationship between nonemployment and recorded sickness, Christina Beatty, Stephen Fothergill, and Rob MacMillan (2000) argue that interactions between recorded sickness and ill health mean that conventional measures of unemployment are distorted. Moreover, this distortion varies from time to time and from place to place. Such place-specific variations in the relationship between unemployment and sickness are likely to be amongst the factors underlying the greater spatial unevenness in nonemployment than in unemployment. The more general point of relevance for this response is that measures of labour-market disadvantage used in socioeconomic studies with a spatial dimension may themselves be distorted by geography.

Explaining spatial variations in unemployment and nonemployment

A number of competing explanations have been put forward for spatial variations in labour-market disadvantage, and more specifically, unemployment. One of the main contrasts is between supply-side explanations and demand-side explanations.

On the supply side the so-called 'characteristics hypothesis' focuses on understanding the spatial distribution of unemployment in terms of variations in the spatial distribution of individuals with characteristics conducive to unemployment (notably poor skills). The associated policy response is reskilling. Proponents of 'withering flowers' and 'culture of unemployment' theories contend that a prolonged detachment from the labour market may undermine attitudes and behaviours, so leading to the erosion of skills and motivation, and the prevalence of a 'culture of unemployment' and reduced job-search activity. The associated policy responses involve reacculturation to the labour market, as well as reskilling. Hence, supply-side explanations emphasise aspatial factors.

Demand-side explanations of unemployment suggest that unemployment is caused by there being insufficient jobs available. It is possible to distinguish situations of a numerical shortage of jobs (that is, overall demand deficiency), a lack of jobs to meet the skill levels of unemployed people (occupational demand deficiency or 'skills mismatch') or insufficient jobs in accessible locations (spatial demand deficiency). The last situation is often described as one of 'spatial mismatch', because it is about a geographic gap between people and jobs, leading to a lack of opportunity in poor neighbourhoods. The emphasis in the spatial mismatch hypothesis is on barriers to work resulting from 'structural societal constraints' (for example, urban deindustrialisation, job suburbanisation, inadequate public transport), rather than on individual needs (for example, training). Hence, associated policy responses are concerned with job creation and enhancing spatial access to employment.

The 'local' orientation of the unemployed non-employed

There is considerable evidence that those most disadvantaged in the labour market tend to have a more 'local' orientation than more advantaged groups. Evidence from a local labour-force survey conducted in Hackney and Islington (Hasluck and Green, 1998) revealed two distinct groups. The first group could be characterised as 'very local' in terms of employment and residence, being concentrated disproportionately in the social rented sector, and amongst ethnic minorities, the nonemployed, and those in low-skilled jobs. The second group had wider job horizons and a lower commitment to staying in the area. The first group can be found in poor neighbourhoods throughout the United Kingdom. In education and employment terms, this group may be characterised as wanting 'local' jobs and 'local' training for 'local' people.

The spatial extents of labour markets for the less qualified, and their labour-market decisions, tend to be highly dependent on the close proximity of employment. Evidence from travel-to-work patterns shows that the disadvantaged are less mobile and more reliant on public transport than the advantaged. Some people physically cannot reach jobs because of public transport problems (encompassing dimensions of availability and cost), and others are reluctant to travel outside their neighbourhoods. Indeed, job-search activities may be constrained by anticipated costs and ease of commuting, particularly if the jobs in question are low skilled and low paid. In both urban and rural areas, the less well qualified and the unemployed tend to have least locational flexibility in seeking jobs.

Of course, transport is not the only, and generally not the most important, barrier to employment. Evidence from the West Midlands suggests that there are a number of

key barriers identified by those actively seeking jobs—including age, ill health, and lack of jobs. From the perspective of debates about ‘skills mismatch’ and ‘spatial mismatch’, it is pertinent to note that, amongst the unemployed themselves, ‘lack of jobs’ is more likely to be mentioned as a barrier to employment than ‘lack of skills’.

The implications for policy—is there a role for a local dimension?

Recent government policy, informed by the work of the Social Exclusion Unit and Policy Action Teams, has attached particular importance to spatial concentrations of deprivation in urban areas. There is now a plethora of area-based zones, including Employment Zones, the New Deal for Communities, etc, in areas of concentrated deprivation. Moreover, following devolution and changes in the infrastructure of regional governance, much policy in relation to employment and the labour market, and particularly its role in relation to regeneration, is decentralising and localising. Yet, clearly, geographical targeting misses those people or groups suffering labour-market disadvantage who are not spatially concentrated.

I agree with McCulloch that it is not a case of focusing *either* on individuals *or* on areas. Creation of local jobs in areas of high unemployment is not a sufficient response to the problem. Research on the spatial operation of labour markets emphasises their permeability, such that job growth does not necessarily ‘trickle down’ to the unemployed and inactive. The jobs so created may go to in-commuters, the jobs themselves may be merely short term, and local people may lack many of the skills required for those jobs. Even if they do have the required skills, high-skilled workers can ‘bump down’ in the labour market and compete with lower skilled workers for lower skilled jobs. Once in employment, more capable residents may leave the local area, believing they need to ‘move away’ in order to escape area stigmatisation and ‘move on up’. Hence, what is needed is a coherent balance, and interlinkages, between an individual and an area policy focus.

Mike Campbell (2000) argues that there is a strong case for the development of local active labour-market policy in reconnecting the long-term unemployed to labour-market opportunities, and that the territorial dimension of employment policy is important. Variations in patterns of labour demand, supply, community employment histories and location, and variations in perceived barriers to employment between population subgroups, interact to provide a degree of local specificity in circumstances. Therefore, local design and local implementation, perhaps with customised delivery for particular groups in particular places, ‘adds value’ to policy. The local policy mix needs to ‘match’ the specificity of local problems and labour-market conditions—in terms of ‘lack of jobs’ and ‘access to jobs’.

Reflecting the need for a focus both on individuals *and* on areas, a local employment policy could have three elements. The first element would be concerned with economic development and labour-market opportunity: that is, generating jobs in the local area. The second element would have a focus on improving individuals’ skills and attitudes, and so enhance employability. The third element would be concerned with interconnecting the area and individual elements of policy, by ‘building bridges to work’, and so providing access to employment opportunities.

Conclusion

With reference to unemployment, nonemployment, and labour-market disadvantage, my conclusion is that place *does* matter—at least to some extent. It certainly matters to those who are disadvantaged in the labour market, because, as outlined above, they tend to have a much more ‘localised’ orientation than the population as a whole. However, the role of place in contributing to understanding may well be

subtle, affecting labour-market experiences in multifarious ways. Unemployment, nonemployment and labour-market disadvantage are complex; and it is difficult to ascribe them to one or more specific explanations. Indeed, there may be links between spatial mismatches and skills mismatches, thus creating a 'double barrier' to job access, so questioning the applicability of attempting to apportion between them.

The difficulty of separating individual and area effects is underlined by Ian Gordon (1999). He argues that concentrated unemployment has been shaped and sustained by a number of processes operating not only in the labour market, but also by housing-market processes, leading to concentrations of low-income and benefit-dependent households in particular social rented housing estates. Induced initially by shortfalls in demand, it may get translated into forms of structural unemployment as other factors come into play. One such factor is the attrition of informal information networks which are of particular importance to the unemployed, and which might have offered access to employment. A second such factor is a lowering of educational and employment aspirations and a narrowing of actual and perceived opportunities. Objective spatial variations in many components of 'opportunity structures' (encompassing the educational system and the housing market, as well as the labour market) may combine with subjective spatial variations in values, aspirations, and perceived 'opportunity structures', leading to geographical differences in labour-market behaviour. In turn, the uneven way in which processes of mobility and job competition operate leave behind an accumulating deposit of 'sediment' (of persistent unemployment and of other individuals in a relatively weak competitive position) on the margins of the labour market each time the tide goes in and out. The implication is that short-term policies of localised job creation will not resolve the problem of persistent spatial concentrations of unemployment, except in the context of sustained full employment in regional and national labour markets. However, in the absence of an active approach to promote upward mobility across the full range of employment in the labour market in order to minimise 'bumping down', neither will policies aimed solely at reskilling or upskilling the unemployed and nonemployed provide a panacea.

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Reply: Ward-level deprivation and individual social and economic outcomes in the British Household Panel Study

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The study of neighbourhood effects has recently gained prominence in social science research. Neighbourhood research has focused primarily on the effects of concentrated poverty. In various studies, long-term illness, unemployment, teenage fertility, and child and adolescent development were outcomes affected independently by a context of economic disadvantage which was measured at the neighbourhood or small area level. My paper was intended to make use of the improvements in the quality of available data provided by the British Household Panel Study to understand these relationships better, particularly the relative importance both of individual characteristics and of neighbourhood poverty. All of the discussants make useful and interesting points. For clarity I shall discuss points related to modeling strategy and model interpretation and policy responses separately. I find that there are critiques of my work other than those raised by the discussants and I shall make a few points of my own.

Modeling strategy and model interpretation

Much of the research undertaken on neighbourhoods is based on secondary analyses of general purpose national survey data and uses multilevel statistical models. In many of these analyses, including mine, there is statistically significant unexplained area-level variation. These findings are suggestive of a neighbourhood effect, of people responding to their local situation. Such diversity of experience of similar individuals between different areas may be as one should expect, reflecting the multitude of locally significant factors that large-scale analysis cannot hope to embrace. An alternative explanation is that the individual-level variables used in neighbourhood studies do not control for unmeasured differences in individuals who live in one neighbourhood versus another; thus neighbourhood effects may simply be a reflection of the characteristics of the individuals who live in certain neighbourhoods (Duncan and Raudenbush, 2001). Some researchers, including me, have instead concentrated their interpretation on the coefficients of the measured characteristics of areas included in their statistical models. The association between area characteristics and individual outcomes is usually quite large to begin with, but after we control for individual characteristics, area characteristics do not explain much variation in individual outcomes. So in this sense neighbourhood effects appear relatively small. Whichever interpretation one favours it is clear that our data and models do not provide particularly good explanations for the outcomes we consider. There remains a lot of unexplained variability in our data even after we control for individual and area characteristics, and how the analyst chooses to structure and interpret that uncertainty is important. My scepticism regarding hypothesised neighbourhood effects reflects concerns over the absence of a link to measured characteristics of areas or to the neighbourhood processes involved. The evidence presented in most analyses regarding local contextual effects is only circumstantial. Of course, this is an empirical generalisation based on the available data, and as such it is clearly wrong in certain cases. That may be, but in the many available studies of health outcomes and social and economic behaviour, there is little clear evidence for any argument about major contextual effects.

Notwithstanding differences in the analyst's choice of interpretation, multilevel statistical models address the clustered character of many datasets in social sciences and do provide an appropriate framework within which to analyse geographical data. The multilevel framework highlights the collective properties of local neighbourhoods, alongside rather than in opposition to individual factors. Such a focus treats neighbourhood contexts as important units of analysis in their own right, calling for new measurement strategies as well as methodological frameworks that do not simply treat the neighbourhood context as a trait of the individual. I agree that there is a need for further development of multilevel methodologies for contextually based research. A central challenge in this regard is to build strategies for direct measurement of the social mechanisms and collective properties hypothesised to predict outcomes such as health or voting. Recent work (Raudenbush and Sampson, 1999) discusses using level-1 measurement models with individuals (level-1 units) being nested in neighbourhoods (level-2 units). Each individual provides responses on a set of dichotomous items with regard to characteristics of the neighbourhood in which the individual is nested. The properties of the neighbourhoods are to be scaled and the individuals may be considered to provide 'parallel tests' for the neighbourhood setting. Stephen Raudenbush and Robert Sampson (1999) use the term 'ecometrics' to describe such an approach. The approach gives each item the same error variance and the same loading, which is quite restrictive. Multilevel structural equation models make it possible to have a more subtle measurement model. The development of statistical models for the multilevel study of community processes remains an important research area.

As several of the discussants point out, a key issue in research on neighbourhoods and communities is how to conceptualise and measure the geographic and/or social units used to define and circumscribe them. The boundaries of local communities do not necessarily coincide with those of wards. In-depth knowledge of neighbourhood characteristics either from ethnographic studies or from the refined observational methods of developmental psychology is needed to understand mechanisms of neighbourhood influence. Such an exploration may require going outside traditional disciplinary boundaries, in order effectively to integrate both neighbourhood-level quantitative measures, the subject of quantitative sociologists and demographers, and qualitative measures more commonly explored by ethnographers and psychologists. A useful aspect of multilevel models is the ability to identify area-level (level 2 in my study) intercepts which reflect the relative probabilities of the different individual outcomes in each area, after controlling for a range of observable individual and area characteristics. This information may allow us to identify areas which have particularly high or particularly low probabilities of each outcome. These areas are the areas where we might want to use qualitative studies to look for the influence of local neighbourhoods (Steele et al, 1996). There is therefore the potential for linking the sophisticated statistical methods with qualitative research.

Because the neighbourhood effects net of individual characteristics that are found in most studies are modest, a future emphasis on variation within neighbourhoods is suggested. Most results show considerable variation in responses from informants within the same neighbourhood even after controlling for individual covariates such as age, sex, and socioeconomic status. What is the source of this unexplained variation? Neighbourhoods appear much less homogeneous than commonly portrayed in the literature, suggesting the need to disaggregate analyses and study smaller ecological units. Furthermore, social environments are not limited to geographical communities. Families, workplaces, and peer groups generate their own collective properties that bear on individual outcomes. Many of these factors are in turn influenced by cultural context and background.

Although there is an increasing amount of data concerning neighbourhoods, there has not been an accompanying increase in the development of theory. We may have many empirical studies relating individual outcomes to area characteristics but we have underdeveloped explanations for the results. Peer-group norms, the absence of successful role models, access to community-based social capital, real and perceived opportunity costs, and both personal efficacy and collective efficacy might all play important roles in explaining any neighbourhood influence. Theories of area effects should help to direct studies of individual and community-level mechanisms, and more generally, enhance our understanding of how social context influences social behaviour.

As noted by the discussants, a limitation of my analyses is that the neighbourhood characteristics are not those considered most relevant to neighbourhood effects on individuals by most researchers investigating neighbourhood effects. Any attempt to capture the complexity of a social environment within an empirically derived scale has limitations, and a neighbourhood-deprivation score cannot adequately reflect all the different dimensions of social experience within an individual's local community. Contextual effects may be location specific and are unlikely to be easily identified by routine use of aggregate census indicators. A major disadvantage of a deprivation score lies in not providing much insight into the mechanisms that might promote positive outcomes and in providing limited information on the depth and quality of social relationships. Social processes, as a pathway by which factors such as poverty influence health, for example, must play a part in explaining differences in outcomes. But there is not yet enough evidence to go beyond the general point that social processes seem essential in a full account of the determinants of individual outcomes. Much health research discusses the importance of lifecourse pathways, but there is little research on how such pathways interact with community, environmental, and cultural contexts. Research on the collective properties of communities thus needs to be integrated with the vigorous body of research on individual pathways. Ultimately understanding the dynamics of change in communities themselves and not just the aggregated characteristics of individuals is important for establishing the sources and effects of collective properties that bear on individual outcomes.

Many of the shortcomings of my and many other studies can be addressed only by using more appropriate data. The study reported by Sampson et al (1997) has many of the characteristics of the type of study required. The study is unique in combining two studies into a single, comprehensive design. The first is an intensive study of Chicago's neighbourhoods, their social, economic, organisational, political, and cultural structures, and the dynamic changes that take place in these structures over time. The second is a series of coordinated longitudinal studies that is following 7000 randomly selected children, adolescents, and young adults, looking at the changing circumstances of their lives, as well as the personal characteristics, that may lead them toward or away from a variety of antisocial behaviours. By looking at individuals and their communities and individuals in their communities as both change over time, the study seeks to unravel the complex influences of community, family, and individual factors on human development. I hope that the opportunity is taken to collect similar longitudinal data in the United Kingdom.

Policy responses

The government has placed great emphasis, over the past three years, on evidence-based policy. There exists a vast array of initiatives and strategies in regeneration, all aimed at removing some of the problems associated with deprived, often urban, areas. At the national level these include the government's recently produced Urban and Rural White Papers and the work undertaken on neighbourhood renewal by the

Social Exclusion Unit. At the local level there are many initiatives including the Single Regeneration Budget, New Deal for Communities, Sure Start, New Commitment to Regeneration, and Urban Regeneration Companies. We have little evidence concerning the effectiveness of these interventions. There is an obvious political desire to improve the conditions in the most deprived neighbourhoods. However, as the discussants point out, a problem with initiatives targeted at deprived areas, such as Sure Start, is that the target group reached is often too small. To target only the most deprived areas is to miss where the bulk of the problem lies. Interventions which are targeted directly at individuals can work. The most effective means of tackling the inequalities which originate from poverty is to tackle poverty itself and an increase in the rate of universal benefit would probably be more appropriate than the present array of area-based policies.

I would not, however, dispute the claim that area-based strategies are sensible in certain instances. As argued by one discussant the build-up and persistence of very high unemployment and inactivity rates and accompanying social problems in a few intensely deprived neighbourhoods within many British cities suggests that there must be local influences at work within the labour market (Brennan et al, 2000). There are likely to be several causal mechanisms at work. The leading cause is the interaction between policies for the provision of local authority housing and the characteristics of residents of social housing who are among the least competitive in the labour market. A notable characteristic of present policy in the United Kingdom appears to be to try to ensure that those who are unemployed or at risk of being unemployed obtain jobs even at low rates of pay. Using data from the first eight waves of the British Household Panel Study and the 1981 and 1991 UK Censuses I have examined the impact of changes in local labour-market conditions on individual poverty exits and entrances. A standard deviation increase in the proportion of ward employment in services (Standard Industrial Classification Divisions 8 and 9) between 1981 and 1991 is associated with an 8.8% decrease in the likelihood that an individual exits from poverty within one year and a 5.3% increase in the one-year entry rate into poverty. Although the evidence is not wholly conclusive it is pointing towards the conclusion that the increase in the availability of low-end jobs may not be a sufficient means to help disadvantaged people in disadvantaged neighbourhoods escape from the complex of problems which make them socially excluded or partially so.

It is not at all obvious, however, how one should go about designing and implementing effective policy responses. It is unlikely that any policy would be both effective and politically feasible. Politically acceptable responses are programmes to improve individual's human capital, through education, training, or other means. Such policies will benefit individuals, but it is clearly not the case that all, or even most, individuals, could benefit from such policies. A supply-side approach cannot tackle what is inherently a demand-side problem. The problem facing the unemployed and those in low-paid manual occupations is that global market forces have made stable jobs harder to find and have increased the competition for those jobs (Chevan and Stokes, 2000). No policies now being considered by government hold any real promise of confronting these structural dimensions of disadvantage.

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