The Methods Used in Connected Lives:

Investigating networks, neighbourhoods and communities

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Working Paper

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NETWORKS, NEIGHBOURHOODS, AND COMMUNITIES**

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Real Life Methods, the Manchester / Leeds Node of the National Centre for Research Methods

Introduction

This working paper describes the methods we used in the Connected Lives project[1]. Connected Lives was an investigation of networks, neighbourhoods, and communities, with a focus on what happens and what passes along these networks (Crow, 2004; Pahl and Spencer, 2004). It sought to understand how networks are built, maintained, and break down and how we understand the dynamic, processual, and contingent nature of relationships along a network (Emirbayer, 1997; Emirbayer and Goodwin, 1994). The methods were designed to capture the multi-dimensionality of the real life experience of networks, neighbourhoods, and communities. Our strategy was a qualitatively-driven mixed method approach. We used methods in ways relevant to the questions being asked, and the kinds of explanation being sought. We were interested to investigate the ways in which different methods would help us to gain insights into particular elements, dimensions, and layers of the social and material world and the lived experience of networks, neighbourhoods, and communities.

Our aim was to explain the complexities of living in networks, neighbourhoods, and communities. Closely allied to this is how networks, neighbourhoods, and communities are lived in different contexts and the complexities of how and why things change and work as they do in certain contexts and circumstances. By emphasising the concept of context, our proposal argued, that there is "an opportunity to harness the currently underexploited explanatory potential of qualitative approaches, through the development of principles for social explanation which can be generalised because of their sensitivity to the differing textures and micro and macro contexts of everyday living" (Mason, 2002).

Further, we proposed that as we developed explanations of how real life networks, neighbourhoods, and communities are built, maintained, and break down in different contexts, and by understanding the social processes and practices that are possible in these contexts, we can move between different contexts to develop principles for cross-contextual explanation. Context is factored into, rather than controlled out of, our analysis and developing explanations. There is not simply one singular, all-embracing, blanket context whose salience can be known. While, as discussed below, descriptions of local area statistics and demographics are important, they do not adequately explain all contexts. We need to move beyond these measures to gain insights into what aspects of context are important towards improving our capacity to explain complex relational social processes. We need to understand how contexts relate to the doing and living of networks, neighbourhoods, and communities and factor this understanding into our explanations.

This working paper is arranged to reflect our methodological aims. We start with a discussion of why we selected the methods we used. The second part of paper considers our research site and the ways in which we selected a sample. We relied on secondary quantitative data to identify a representative sample though as will be seen, we refined our understanding of who was in our sample and who our sample did not represent as the research progressed. The methods we use can be divided into two

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[1]   Connected Lives was part of the Real Life Methods, the Manchester / Leeds Node of the National Centre for Research Methods (Round 1) of the ESRC

groups: methods to understand context and methods with participants. In section three we describe the methods to understand context. These include a walkaround, key informant interviews, and historical data collection. Within these methods we note the importance of the methods of participant observation and reflective research diaries. Section four considers the three methods we used with participants in the research, walking interviews, participatory mapping, and day-diaries of communication practices. The fifth section considers analysis. Here, we discuss the use of casing and how this facilitates context dependant analysis, theorisation within and between cases to provide explanatory accounts of complex relational social processes of networks, neighbourhoods, and communities. Finally, we consider in what ways this qualitatively-driven mixed method research may contribute to the investigation of networks, neighbourhoods, and communities. We suggest it provides important explanations of social processes and may contribute to a more relational investigation of networks.

Section 1: Choosing the methods

As can be seen from Figure 1 our methods fall into two groups, methods to understand context and methods with participants. In addition, there were three areas we considered in identifying the methods we used in the research. These epistemological, methodological, and theoretical considerations guided decisions about how we chose to investigate and seek social explanation of the lived experience of real lives of peoples' networks, neighbourhoods, and communities.

Figure 1: The methods used in connected lives with participants and to understand context
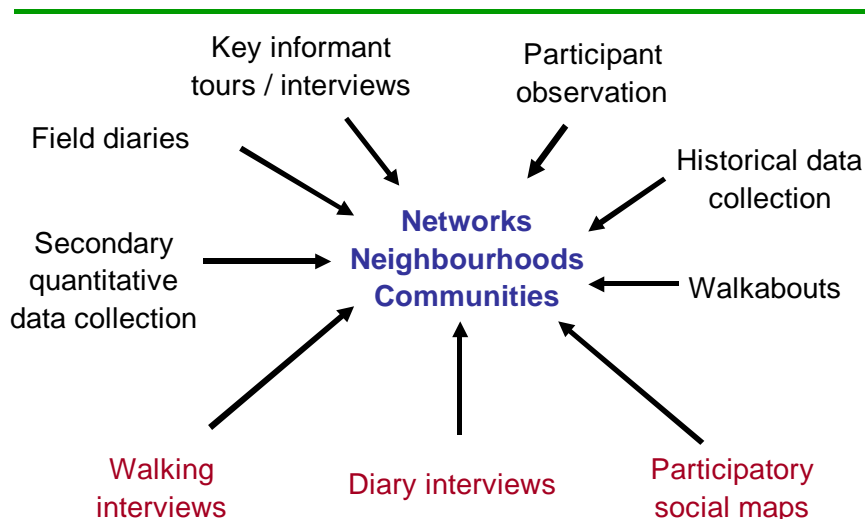

First, epistemologically, as we have explained in the introduction, the research set out to pioneer qualitatively-driven, creatively blended, multi-dimensional approaches to social explanation, which we proposed to develop strategically in the service of research questions about the lived experience of networks, neighbourhoods, and communities, and to make context explicit in our methods and analysis.

Secondly, methodologically, we reviewed the ways in which networks, neighbourhoods, and communities have been investigated by researchers already and considered the kinds of explanation that arise from these approaches. As Clark (2007) has observed, in an early working paper for Connected Lives, approaches to network analysis frequently untie relationships from physical space and reformulate these in measurable relationships between individuals Networks become descriptive tools, which evoke metaphors for relationships between individuals. There is a tendency to limit understanding of networks through methodological strategies that investigate and therefore describe some normative attributes of the lines between nodes on a network.

Thirdly, theoretically, we considered current debates about the ways in which networks, neighbourhoods, and communities are understood sociologically. Of particular note are the ways in which networks, neighbourhoods, and communities are understood spatially. Space in network analysis has been treated as measurable points—a post-code, a grid reference, and more recently geographical positioning systems (GPS). Distanciation, that is time / distance (Giddens, 1984) is a measure of the degree to which the friction of space has been overcome to accommodate social interactions However, when we talk about space we understand it not only as material space, but also as perceived and imagined (Lefebvre, 1991) and want to consider how it is accessed, appropriated, dominated, and produced (Harvey, 1990). We are further interested to seek richly textured accounts of networks through drawing on the methods of traditional community based studies (for instance Engels [1892] 1987) and Whyte [1943] 1994) and observations derived from investigations of networks including the work of Granovetter (1973:1361) who characterised ties as "a combination of the amount of time, the emotional intensity, the intimacy, and the reciprocal services". The nuanced accounts of the flows and practices on a network, for instance communications, the movements of artefacts, and mobility and immobility (Benjamin, 1999; Urry, 2004), were also considered. So to were approaches to gain insights into the forces that shape networks, neighbourhoods and communities behind people's backs (Marx [1888] 1973). Finally, as noted, we were concerned to understand these practices in particular contexts, leading us to start our investigation in a particular defined place.

Section 2: Sampling

Starting with place
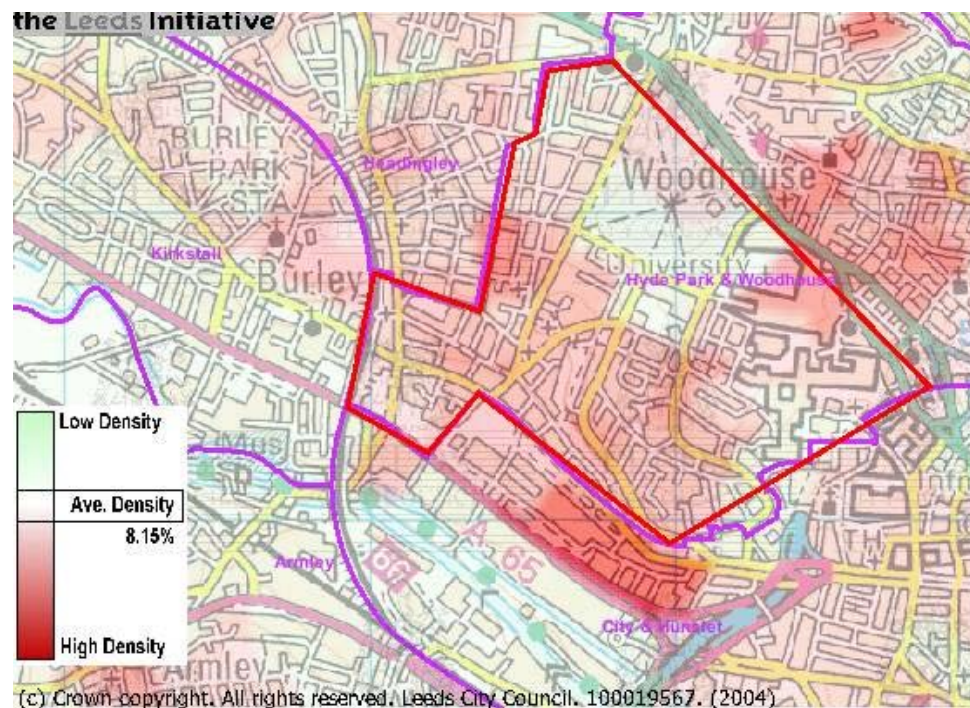
We chose to do the research in a particular place: an inner city area covering approximately 2 square miles of Victorian housing stock interspersed with more modern apartments, flat conversions, social housing, neighbourhood retail centres and a number of religious and education institutions, the most prominent of which is a large university. We defined the boundaries based on our knowledge of the area. It is a place demarcated by main roads and a rail line that we learnt from key-informants identified this area from the surrounding districts of the city. We also selected the area because it has a mixed population. While we started with place we always recognised that the boundaries of our research site were porous. Networks, neighbourhoods, and communities may be constrained within small areas of our research site or may cross its boundaries in important and telling ways. We knew, for instance, that important features of context crossed the border of this place, such as service provision, administrative boundaries (see the map), and the policy landscape. In addition, we would learn as the research progressed that there were important boundaries we could not see.

Sampling

Our decision about who to sample in place was made based on an analysis of secondary quantitative data. Demographic, economic (including deprivation indices), and data on ethnicity were particularly important. We identified four groups: students; long-term residents living in less affluent circumstances; ethnic minority groups (in particular Pakistani groups whose family origin was in North-West of Pakistan, and Afro-Caribbean groups); and young professionals. At the early stage in the research when we made a decision about who to sample.   Our only claim to the representativeness of the sample was that it reflected patterns identified in the

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secondary quantitative data though insights into how representative our sample was of the wider population in the field site were developed and refined throughout the research. As with any research project, we were constrained in the resources available. Decisions were made early in the research about how many individuals we could sample. Resources allowed for the inclusion of 24 participants, we selected six from each of the four groups, though it is important to recognise that our sampled groups are not necessarily mutually exclusive.

A further important consideration in our decision about the sample that is both a methodological and a resource issue involved making explicit the ways in which the sample was focussed. We chose to sample only participants between the ages of 18-26 years— though we went on to recruit some slightly older participants, particularly among the young professional, reflecting the messy boundaries that have to be negotiated in research. The focussing of the sample on a particular age range was informed by both etic (a general classification derived in advance of the study) and emic (particular patterns seen at the research site) (Fielding and Moran Ellis, 2006) considerations:

- Data on age in the Census (and in the lower and middle super-output area) are presented by age classification. We were constrained by boundaries in the data over which we have no control.
- The area where we were doing our research has a large population in this age range, which was unsurprising as there is a large student population, and, we would learn, was home to many graduates who chose to live in the area because of its culture.
- While we did not intend to conduct any formal variable analysis, limiting the age range of our sample also meant we could sample out life-stage and the impacts of longer life course from our analysis. The lived experience of older participants' networks, neighbourhoods and communities would undoubtedly have been influenced by layers of biographical context.

This focusing process contributed to our understanding of the representativeness of our sample.

Access is a further consideration in sampling. Research is always constrained by who is willing to participate. Participants may choose to be included in the study or not. They may also choose to involve themselves in particular methods in the study and exclude themselves from other methods. Moreover, participants may not have the skills to be involved in particular methods. Designing methods requires consideration of issues like literacy or confidence in being able to produce, for example, visual representations for the research.

The methods of initial access to participants varied across the diverse sample we sought to recruit to the study. Access to students and young professionals was the most straightforward. Students were accessed through advertising on the university programmes we teach. We ensured that research was carried out by a researcher not directly associated with the student and asked all student participants whether or not they wanted particular parts of interview transcripts removed given one of their lecturers would see them. We accessed young professionals through acquaintances and snowballing from these people we already knew through friendship and professional work. These two groups were easier to access because they represented people most similar to us. They have similar cultural capital (Bourdieu, 1999) and a

similar education, which included affinities of understanding of research and the issues we were seeking to investigate.

As Bourdieu (1999) notes there are limits to these homologies of position. To recruit hard-to-reach individuals and groups we applied methods we have developed in earlier research (Emmel et al., 2007; Emmel and Hughes, 2009). In summary, access was through gatekeepers that provide long-term comprehensive services to socially excluded individuals and groups. By comprehensive provision we mean that in addition to delivering particular services, like health visiting or drug counselling for instance, they also address broader issues in their clients' lives; a role we describe as fringe work. Through long-term engagement and involvement in addressing basic needs these gatekeepers build relationships of trust with their clients. As researchers we gain access to participants through these relationships of trust. Furthermore, because we and the professionals who act as gatekeepers have similar cultural capital, it is they that can make a judgement about the value of the research being undertaken and convey this value to potential participants in the research in negotiations to gain access to do research. We gained access through voluntary organisations and health visitors. Before embarking on using health visitors to gain access we obtained ethical approval from the NHS National Research Ethics Service.

Section 4: Describing the methods to understand context

Secondary quantitative data collection

Data collection started with the collection and analysis of secondary quantitative data. These data are increasingly available and accessible to the social researcher at levels of aggregation that make them useful to the investigation of relatively small areas. Lower and Middle Layer Super-Output area Census data (including demographic, economic, ethnic, household composition data and deprivation indices such as the Townsend Deprivation Index) were used. Data on crime, welfare benefits, social services and health data were also collated as and when they became available through local councils. The data we used was predominantly gathered from internet sources with some additional input from published and unpublished reports.

Methodological issues from collecting secondary quantitative data

- The selection of datasets and statistics to represent the field site is constrained by decisions and historical processes that have produced particular boundaries and ways of representing social and economic life within these boundaries.
- Inevitably some data are missing or not available in a convenient format. Ideally more detailed data may be required on particular aspects; or other data may need to be combined to present a more detailed picture.
- Manipulation of the Census data produces a detailed contextual representation at a finer grain. The figures and tables produced provide important insights into the area, its sameness and differences.
- The available quantitative data is drawn from a variety of sources (e.g. Primary Care Trusts, Police, Census etc.). These sources do not use precisely the same timeframes, geographical boundaries or scales for collecting and presenting data. Consequently, it is not always possible to compare across data-sets. Inferences have to be made from the available data aggregation.

- Owing to issues of confidentiality, it may be difficult to obtain precise data at the street-level. Some additional data (such as educational attainment) is also not collected at such a small scale.
- To emphasise the point, there is more to the research site then the figures chosen to represent it. The field site will also be experienced through various spatial practises grounded in historical economic, social and political pasts that will have contributed to the production of the figures and maps. These maps and figures do not document naturally occurring data, but rather stand in for other processes and experiences not explicitly documented; it is important to be cautious when making further assumptions about the everyday experiences of real life based on these data.
- Nonetheless, important insights about who lives where and their general condition are made clear from these secondary data. They provide a part of the contextual information that is important to understanding particular kinds of patterns across the research site.
- Insights from these data meant we were better equipped to make decisions about the sample with whom we conducted the participatory methods. Even through rather crude analysis of these secondary quantitative data we found a population sub-group we had not considered in our early planning as we have noted in our discussion of the sample.

Field site walkaround

Walking the research site is something that many researchers of place do, we go to see, smell, feel, hear, and understand the place for ourselves. As Simmel (quoted in Benjamin, 1999:26-27) notes, the researcher must notice and use their senses if they are to gain insights into the social life of a place:

> Someone who sees without hearing is much more ...worried than the one who hears without seeing. This principle is of great importance in understanding the sociology of the modern city. Social life in the large city...shows a great preponderance of occasions to see rather than to hear people.

The ways in which the urban environment is made, used, and worked-over leaves traces for the social researcher to find and understand. The city resonates with spatial practices; how its inhabitants and those that pass through its streets and houses make sense of space in their everyday and extra-ordinary practices. Traces are left of how space in lived, imagined, changed, and appropriated by these activities. But these are traces.

The walkaround represented an attempt to understand the ways in which people live in and use the place. Our walk was arbitrary. It connected places we knew already in the research site. We sought, also, to walk through the different kinds of built environment and public spaces we had already noted. We walked our route approximately every three months throughout the research, always retracing our steps, and trying to walk at the same time of day. Along the way we took photographs. However, we recognised that the pictures we take in our research capture only a glimpse of the space. Space can not be shown by space itself, Lefebvre (1991) observes. To make a claim that we can capture space in a photograph is to assume that a part is representative of the whole. As Lefebvre (1991:97) goes on to note, a photograph "detaches the pure form from its impure content—from lived time, everyday time, and from bodies with their opacity and solidity, their warmth, their life and their death". So, in addition to photographs we kept careful field notes of what we had noticed, seen, remembered, been reminded of, talked about, and felt as we walked. We sought to contextualise these notes in the time of year, the season, the weather: a walk in winter rain was very different to a walk on a warm summer's day.

Methodological issues from the walkaround

- Walkarounds helps the researcher to familiarise themselves with place. They provide an opportunity when carried out regularly to see how places stay the same and change through the cadence of the seasons and the life of the place itself.
- Walkaround are a participant observation of place. We follow in the footsteps of those who also pass through the place, albeit we do not know their routes and must make our own way. We get to feel what it is like to walk around a place.
- We identify rapid appraisal indicators of particular features of the area, or places within the area—the ways in which houses, gardens and streets are maintained and decorated for instance.
- Photographs taken along the way provide visual material signifiers of the area, and, as noted in the introduction to this section, provide partial accounts of the place. These may be panoramas that seek to represent the area, or of key issues—the kinds of people who live in the area, particular social problems like rubbish or traffic were important example from this research.

- As the research progresses and more is learnt about the area, the places, people, and issues observed along the walk are embellished with richer meaning. Our understanding of the place changes and this is recorded in the way with interpret photographs, the conversations we have as we walk, and the writing in our research diaries; the walkaround triggers associations to insights gained through other data about the place.
- The walkaround acts as a mnemonic device, it reminds us to ask questions about particular issues we see.
- The walkarounds allow the researchers to be seen in place, to meet with people on the street and to talk about the research—we gained valuable insights from those we talked with (almost always on sunny days unsurprisingly) and some of those we met serendipitously became important key informants to the research.

Key informant interviews

We talked with a considerable number of key informants. Our sample may appear opportunistic at first sight. As we noted in our discussion of the walkarounds, we would often meet people who would became key informants to the research. Similarly, we met many of the key informants through being in the research site regularly and interacting with community based activities, like, for example, a weekly lunch club at one of the community centres or a one-off community barbecue. These informal conversations were recorded in our research diaries. The informal chats were often the start of a longer-term relationship with a key informant and much more intensive and systematic interactions throughout the research. Sampling decisions were made by the research team about the appropriateness of pursuing a relationship with a particular key informant—a purposeful strategy informed by our research questions and the resources available to us. Other key informants were referred to us because they were regarded as having something important to say about a particular issue. Here we employed a snowball sample approach to identifying and researching with key informants.

The key informants recruited to Connected Lives fell broadly into four groups. Community leaders who played an influential role in particular interest and community groups. Voluntary and paid workers from the four community centres and other third-sector organisations active in projects in the area. Elected and appointed representatives from the local authority, the National Union of Students, churches, and mosques. And those leading campaigns in the area, such as campaigns against violence or promoting community cohesion.

Many of the key informants met together in community meetings, organised through area-wide and city-wide umbrella organisations. We attended these meetings and were able to observe how these different community leaders interacted with one another. Through this participant observation we were able to establish the ways in which key informants made claims to represent particular groups and causes in the community. As participant observers we also interacted in these meetings and came to be seen as an authority on the area; researchers who knew important information about the research site and those who lived there. As the research progressed we found we also became partial observers whose findings supported particular views of the networks, neighbourhoods, and communities in the area (Emmel and Clark, 2008).

With some key informants we made a sampling decision to pursue a more intensive relationship through the research. These relationships were built through regular interaction and more formal methods, which included semi-structured interviews, participant observation, and tours (this method is discussed in more detail below with the walking interview). Maintaining relationships with key informants included acts of reciprocity such as helping community organisations write reports or cleaning a local community centre. These longer-term relationships allowed us to move from finding out about networks, neighbourhoods, and communities to discussing our on-going analysis, and eventually presenting our findings either in conversation or through more formal dissemination channels like briefing papers and workshops held at the research site.

Methodological issues from research with key informants

- Key informants need to be identified. The methods of identification include being in the research site, active recruitment from institutions in the place, and following up referrals to individuals that have particular information or insights that are important to answering the research questions.
- Recruiting key informants to the research may often appear to be opportunistic. Careful planning and sampling decisions that relate to the research questions and resources must be made however.
- Maintaining contact with key informants is labour intensive and often requires consideration of the resources needed to build reciprocal relationship.
- Key informants represent particular causes, campaigns or groups which may be exclusive to a particular constituency, and certainly will be partial, within the research site. Methods such as participant observation and tours, are needed to understand who key informants represent and who they do not represent. This observation applies as much to elected officials as it does to community leaders.
- Evaluation of the representativeness of a key informant can be at odds with the claims made by him or her. One reason for these claims is the structural pressure to demonstrate inclusivity for funding in third sector organisations.
- Relationships with key informants go on throughout the research. They play an important (though at times limited) participatory role in moving from describing to supporting analysis, to reviewing findings in the research.
- Research findings from place-based research are inevitably partisan. This will mean that sometimes difficult relationships will have to be managed and negotiated with key informants.

Historical data

A further layer of data that informed our understanding of the place where we were doing the research included historical documents, maps, photographs, and accounts. Some of these data are published, others belong to members of the community who act as guardians of particular historical accounts, while others are preserved by local libraries. These preserved documents are either there by chance, a collection donated by an interested local historian or photographer for instance, or are part of official practices like planning and regeneration schemes. Increasingly library and official resources are available through web-based resources in digitised historical records. A further important source of historical data are newspaper reports.

Methodological issues from collecting historical data

- Historical accounts identify particular ways in which places have changed and stayed the same.
- These accounts are partial, reflecting administrative priorities and concerns and broader policy objectives (like post-war slum clearance, for instance).
- The preservation of historical records often reflect particular power relationships within place, such as an active group of citizens pressing for particular kinds of change. An example of this is the redevelopment of a recreation area on the site of demolished housing.
- The available written accounts, including books, newspaper reports, and official reports, and other artefacts like photographs often lack any methodology, which makes interpretation and positioning of these difficult in producing accounts of context.

- Serendipity plays an important part in what historical accounts can be collected. The availability of a key-informant who had been part of a critical moments in the history of the place, for instance.

Section 5: Describing the methods used with participants

**The walking interview (and tours with key informants)**

Walking interviews were one of the three participatory methods used in Connected Lives. Mobility and mobile methods are receiving renewed interest among social science researchers. We presupposed that this mobile method would offer insights into the ways in which everyday life is embedded in and receptive to place. We sought to engage with the mobility and fluidities that make up contemporary social live (Urry, 2000) and offer insights into how relationships to space are perceived and imagined. How spaces and places are produced and are productive of the social lives of those who live in them. The aim of this methods was to gain insights about the spatiality of networks; their distance and points of destination, engagement, and alienation, and how these are represented and interpreted in making, maintaining, and breaking down networks, neighbourhoods, and communities.

This method required participants to take us on a walk through their neighbourhood. We asked each participant to plan their walk in advance. We did not agree where we would walk, but only arranged when we would do the walk. Participants were supplied with a disposable camera and asked to take photographs as we walked if they wanted to. Most walks started at the participant's home where they were asked where they would be taking us and why. The interview was recorded on a tape recorder. We found that a small hand held microphone with a windshield (to minimise environmental noise) held by the researcher was the most effective way of recording the interview. As we walked questions would be asked about where we were, why we were at this point, and what this particular route or place meant to the participant. We employed the position we commonly take in research interviews of the naive but informed interviewer; our probes sought to encourage the participant to consider the dimensions of spatiality described above. To capture one definition of space and to provide a reference point to interpret the transcript, we mapped the route out on a 1:50 000 Ordnance Survey map immediately after the interview Frequent note was made by the researcher, if the participant was not providing the detail, to location during the interview.

The walking interviews fell into three groups, node-to-node walks, walkalongs, and extended journeys.

- Node-to-node walks were planned to traverse the urban landscape to get to an important node, this might be a building, cultural venue, or friends' houses for instance. As can be seen from Figure 2, the route between these nodes was often unfamiliar. We got lost during half of these walks and had to rely on the researcher's overarching knowledge of the urban landscape to find a route to a particular destination.

Figure 2: A schematic of how to get lost on a walking interview (note that the lines are rarely straight for long in the urban landscape)

Got lost here

Participant's normal route to node

The walking interview route

HOME
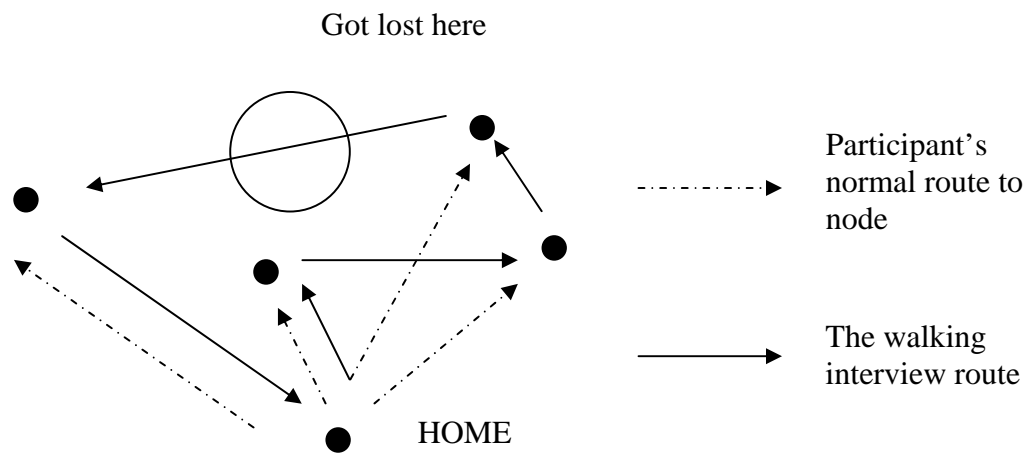
- Walkalongs traced familiar and well walked routes. They often provoked discussions about change and sameness in the urban landscape—the change in a shop display, for instance. Participants often bumped into familiar people with whom they stopped to talk or talked about with the researcher.
- Extended journeys were done by two participants. The journeys planned were so long they requested to travel by car between places and people, one participant cycled everywhere normally, another had family ties beyond the neighbourhood.
- One participant, a local activist and member of our Black and Minority Ethnic (BME) sample, declined to do the walking interview. He did not want to be seen with the researcher walking along talking into a microphone. He was worried that people would think he was acting as an expert on the area.

The walks varied considerably in length. The longest took five-and-a-half hours, the shortest only twenty minutes. The length of a walk did not determine the depth and breadth of the data gained. A short walk was long in detail, history, and rooted sense of engagement with a local area, relationships with people, and embodied practices.

Key informant tours followed the same method. These were, however, different in the kinds of data obtained. These were focused, sampled, and intended to provide expert accounts. They provided rich narratives through particular expertise in the area. These may be a participant's account of disturbances and the particular social relationships in place that provoked these, or detailed accounts of the history and development of a regenerated area and the key informant's involvement in that regeneration.

Methodological issues from walking interviews

- Walking interviews need to be carefully arranged with participants in advance so they can plan their walk.

- The weather is important, and changes to schedules will have to be made. It is best to avoid planning to do walking interviews in the winter months.
- The use of discreet recording equipment is important. Walking along with the researcher (who is known in the area as a researcher) carrying a microphone potentially marks out a participant.
- Similarly, participants may feel uncomfortable using a still-camera as they walk.
- Giving participants a free reign to choose their route in this participatory method meant we went on different kinds of walks, some were planned with references to places and people, others traced routes, but all provided rich insights into participants' spatial practices and their movements, fluidity, embedded and receptive nature to place. Stories are told about how participants live in place.
- Where the route is less important than the destination it is useful if the researcher has an overarching knowledge of the urban landscape. An A-Z map is useful.
- Walking interviews with key informants are planned strategically to draw on particular expertise about issues important towards answering the research questions.

Participatory maps

Participatory mapping has a long history, particularly in research in low-income countries (see Cornwall, 1992; Emmel and O'Keefe, 1996). These visual and participatory mapping methods have also been used in other contexts, such as the investigation of perceived distribution of asbestosis around an asbestos plant in Canada (Keith and Brophy, 2004).

Participatory maps have been used in two quite distinct ways. First, to garner knowledge rapidly from people about locality, such as the boundaries of neighbourhoods in a slum (Emmel, 1998). A second approach uses mapping techniques to understand knowledge about a particular issue, and then use these maps as prompts to gain further insights into understanding and interpretation. Andrea Cornwall's use of body maps to research rural Zimbabwean women's' knowledge of their reproductive tracts and the ways in which oral contraception is thought to work is an example of this methodology (Cornwall, 1992).

These visual data-gathering approaches have been used to document other forms of abstract relational data. As Amsden and VanWynsberghe (2009:361) observe 'the final products, maps, offer a rich and layered description of the mapmakers' perspective of the local environment…maps are therefore able to capture emotional and other abstract connections experienced by the mapmaker' (see also Burgess et al., 2008). We would go further than this, suggesting that the participatory mapping method we used enables participants to move from description of spatial practices, to their elaboration and theorisation.

We used a blank-sheet approach. We asked participants to plan a map for us, generally arranging the interview about one week in advance. Participants were asked to draw out their networks. We emphasised that there was no right or wrong way to do this. At the interview participants were given flip-chart paper, pens of different colours and thickness, and post-it notes. The interview was both audio video recorded. Video recording was particularly important as it helped us to understand the sequence in which the map was drawn and the ways in which the participant used the map, pointing out features for instance. Our questioning sought to keep the participant on a loose tether (Gubrium and Holstein, 2001). Out interview schedule sought to facilitate a move from description, through elaboration, to theorisation of the network produced. In two cases the participant did not feel they had the literary skills to produce the map they wanted to draw. The researcher drew the map under the participants' direction. On two other occasions the participant was not happy with the map they produced and asked to keep the map and develop it. We returned to the participant so they could explain their revisions.

The description of social networks in participatory mapping identifies the patterning of social connections that link a set of actors (Freeman, 2000). Cliques - that is, sub-sets of points where every point is connected to every other point (Scott, 2000), are made evident, as can be seen in the figure above. The participatory map diverges from other methods of developing sociograms because it does not seek to explore specific researcher defined attributes of a network such as the strengths and weaknesses of ties (Hogan et al., 2007); the importance of a relationship (Pahl and Spencer, 2004); nor does this mapping seek to constrain and limit the investigation to a specific number of people doing particular things, as is common in network analysis (see Clark, 2007).

As we have noted, participatory mapping is used in conjunction with an interview in which the reasons for representing networks in particular ways are probed and elaborated. The meanings of lines and nodes are interrogated and the reasons for drawing the map in particular ways are explored as the quote from this participatory mapping interview transcript shows:

SE: Oh yeah.   Er – so ..... [community] Centre, I worked there for six months so I kinda know people like Ty, he's the manager er, Anna who I'll put down here because these are all like my work people.
NE: Right.
SE: In a more scary square box (laughs)
NE: Okay.
SE: In a fuzzy nice one. (laughter) So er, so I met Anna there. Well, Anna. Put Anna er, but I also now work with her.
NE: Okay, that's the [work] square is it?
SE: Yeah. This is [work] – the scariest one of all (laughter)
(SE SocMap:10)

The kind of map produced is planned and developed by the participant, not constrained through the method imposed by the researcher. The researcher's role is to facilitate the move from describing networks, neighbourhoods, and communities to elaborating on the ways these are built, maintained, and break down, and to go beyond this elaboration to theorise about the ways in which the participant does networks, neighbourhoods, and communities.

Methodological issues from participatory maps

- Participatory mapping must be carefully planned. Special equipment is needed and appropriate space to do the mapping considered. The ways in which the method is introduced to the participant, and the schedule for the interview, alongside ethical considerations need careful planning. These issues are dealt with in detail in Emmel (2008).
- When recording the drawing of a participatory map video recording is useful as it provides a record of the way in which the map was drawn and used by the participant.
- It is important to emphasise to participants that there is no right or wrong way to draw a map.
- Participatory mapping is not an artistic exercise, although participants may feel they do not have the ability to draw maps at the outset. We found that participants soon found a way of doing the map with which they were satisfied, although sometimes this took several drafts.
- Participatory maps do not stand alone, they are part of an interview and should be planned with this in mind. Research questions need to be clear and strategies for probing during the interview developed.

Day diaries of communicative practice

Day diaries of communicative practices was the third participatory method used in Connected Lives. Many researchers have observed how valuable a diary completed by a participant can be in research (Corti, 1993). Bagnoli (2004) suggests that diaries may be used in three quite different ways: to capture intimate and personal moments; as mechanism for recording events that can then be recounted to the researcher; or as a log listing particular events. Diaries can provide mnemonic and reflective accounts that can be pursued through further interrogation by researchers. It is generally accepted that the diary method offers a potential entry into mundane activities and events that make up the 'taken-for-granted' world of everyday life, though Coxon (1988) also comments on the value of diaries in generating discussion around sensitive issues.

Diary-methods used to collect data are frequently used alongside verbal data collected through interview or focus group methods. Many who use the diary-interview technique build upon the work of Zimmerman and Wierder's (1977) 'diary, diary-interview method' in ethnographic fieldwork. For Zimmerman and Wierder, the diarists act as 'proxy observers' who the researcher would then interview, using the diary as a means of elaboration and corroboration. This method was employed by Johnson and Bytheway (2001) in their study of the consumption of medication by older people. However, they caution against the unfettered use of diaries, raising concerns about the impact of sample bias, changed behaviour, and sample attrition. Kemsley (1979), for example, identified various factors leading to bias in diary record keeping, including: the difficulties participants face maintaining the diary over time; that the narrower the focus of the diary, the greater the likelihood of an event being recorded; that diary-keeping could affect the behaviour of the diarist; and finally, that there were differing response rates, according, for example, to socio-economic status or household composition.

Latham's diary method produced both a structured account of daily activity (recorded in the diary) which could be coupled with detailed discussion (through the interview process) (Latham, 2003; Latham, 2004). However, rather than echoing their concerns of truth, reliability and validity, and of looking for and questioning (as right or wrong) the differences in accounts produced by different methods, Latham considered his diary, diary-interview, and photography method as a partial representational act, or performance. Presenting the diary as a kind of performance, it is claimed, enabled participants to put some distance between "their everyday self and their diary writing self". The result makes;

> "it easier for diarists to write about themselves. In essence they were putting less of themselves on the line: less than would be demanded if the emphasis was on producing an absolutely 'truthful' account of their week, and less than in Zimmerman and Wierder's [1977] original framing of the diarist as proxy ethnographer seeking a total recall of events" (Latham, 2003; p2004, emphasis removed)

We used day-diaries for a quite specific purpose of tracking the participant's communicative practices. These practices were often alluded to in the other two

participatory methods, the walking interviews and participatory maps, but were inevitably contextualised within interactions in place in the case of the walking interviews, or were mentioned in explaining the relationships between individuals identified in the participatory maps.

The other methods with participants alerted us to the importance of understanding communicative practices in more detail. The diaries sought to identify what kinds of communication happened and with whom. In line with our research questions however, we were not interested in quantifying a participant's communications but how these tools of communication were used to engage in networks, neighbourhoods, and communities.

The purpose of the diary was to record who the participant communicated with on a given day. We thought long and hard about what a typical day might be and concluded that no day could be typical. In the guidance given to participants we emphasised that it did not matter how many (or how few) people the participant communicated with. We were more interested in how the participant communicated. We offered some example such as the people you talk to on the phone or across email, or have pre-arranged to meet face-to-face, or perhaps bump into on the street. We asked participants to consider how they kept in touch with people. These might be people who the participant talked to, but may also be those whom they greet or acknowledge in the street, chat to on the phone or over the internet, email, or send letters, cards, gifts or other things to. We asked participants to log all the people the participant communicated with, not just those in the study area. And further, that if the participant did not communicate with anyone that was of interest to us as well. We provided a disposable camera and asked participants to take photographs if they wished to help record everyday communications.

Methodological issues arising from diaries and diary-interviews

- Despite assurances about our intentions with the diaries, participants did not always complete the diaries or sometimes were unsure what to enter in the diaries. Although we were not interested in the amount of communicating per se, this did raise issues about the nature of the data produced. For example some participants noted down what they considered the most significant or unusual events which meant the everyday and routine realities of communication were not always recorded.
- Without accompanying interview the diaries were relatively meaningless. Their most useful function was as a means of elicitation to probe for further insight into the significance of contacts and relationships
- Completing the diary was determined not so much by participant competency to complete the method, but by their enthusiasm to participate. Completing one day's worth of communication required a considerable amount of effort. In contrast to the participatory mapping (which, on the whole, participants found interesting) and the walking interviews (which tended to be considered fun), the diaries seemed to be viewed as something of a chore to complete. For most participants, the diary was the third method they worked on and by this point, and given the amount of work required to complete the diary, we appeared to have exhausted the goodwill some participants had afforded us.

This raises questions about over-researching participants in mixed-method research.

- Depending on how soon after completing the diary the elicitation interview took place, participants were likely to have forgotten the significance of the contact, or the context within which contact was made. In some cases, even the notes in the diary failed to illuminate any further detail of what happened during the moment of contact.
- The diaries tended to fix communications and moments within the constraints of a single point in time. Through the social network maps as well as the diary interviews we found that in practice communication and contact could often be constructed beyond the moment and required preparation or planning. For example, meeting up with friends may be the end product of a lengthy period and process of negotiation that the diary would not record. Alternatively, the contacts recorded in the diaries were brief moments within a longer continuum of on-going contact making. Frequently, brief moments of communication via text messaging on mobile phones may have been ongoing over several days as virtual conversations. Inevitably, the diaries lost something of the fluidity of communication.

Section 5 Analysis

The amount of data generated in Connected Lives, as in many qualitative studies, is large. To summarise, our data includes:

- Quantitative data from a range of official sources on the place in which we did the research.
- Visual data and diary accounts of walkarounds.
- Key informant interviews and walking interviews.
- Historical accounts of the place from available records.
- Participant observation of meetings, dissemination events, and other interactions in the field recorded in field diaries.

- 23 walking interviews.
- 24 participatory mapping exercises.
- 24 day diaries and their associated interviews.

Methodologically the researcher is faced with two quite distinct challenges. First, these data need to be organised to facilitate analysis. And second, an analytical strategy must be employed to allow for abstraction to produce meaningful and useful findings from the research. This abstraction, we suggest, happens at two levels. These are first, particular accounts that we choose to use in the local context and may be used to inform local policy making for instance. Second, mid-level theory development is facilitated through a methodology that seeks to develop generalisations that make direct reference to context.

Casing Ns

We employed a methodology of casing to facilitate these processes of analysis (Emmel and Hughes, 2009). The case can be seen as very much like the place in

which we did the research - a case is self-contained and well bounded. These boundaries are constituted and reconstituted by the researchers in social space and social time (Harvey, 2009). Of course, our cases are not bounded by the geographical place as such, but by the finer grained material and relational practices of networks, neighbourhoods, and communities. A case is bounded by the relationships between the human agency of our participants on the one hand, and the social institutions that control and limit the extent of that agency on the other hand. A case, therefore, is a purposeful collection of data from the research that includes both what people do and don't do to build, maintain, and dissemble networks, neighbourhoods, and communities and the context that facilitates or impedes these dynamic process of social action. This organisation of data leads to the development of N cases in the research. In the case of Connected Lives N=24. A case includes all the participatory methods with a participant, contextual data that relates directly to that case, and the field diaries, notes from analysis meetings, and team reflections on the case.

Each of our participants is the focus of a case. The accounts of networks, neighbourhoods, and communities gained through the participatory methods (the walking interviews, mapping, and day-diaries) are the focus of our investigation. These are understood with reference to how these are done day-by-day and the ways in which neighbourhoods are perceived, and imagined; the relational and material actions needed to carry on doing, or indeed not doing, the building, maintaining, and breaking down of networks, neighbourhoods, and communities.

This analysis of the case is constrained and controlled by the context. This context is informed through four explicit activities in the research. First, the selection of the sample, which as we have noted is purposefully produced based on an understanding of the field, the research questions, and our ability to access those with whom we wish to do research. Second, through refining our understanding throughout the research of who is in our sample using insights from the three participatory methods described above. Third, understanding who the sample represent and who they do not represent based on analysis of participants' narratives of their histories and biographies with reference to the insights we gain about context through the methods to explore context we have described. These three analytic activities mean that these cases are 'sufficiently self-contained ...(to) provide meaningful analytic closure' (Harvey, 2009:30). The final activity is to understand how these cases as nested in the wider social world and ask the question: Are these cases representative of similar lived experience elsewhere, and if so how?

What can we do with N cases—theorising within and between cases?

Analysis is focussed at the single case and multiple cases. To each analysis we bring a research question we wish to answer; this is an axial approach to theorisation, where the 'dense texture of relationships' (Strauss, 1987:64) are investigated around a particular regularity. An example might be: 'how are community ties maintained'? Drawing on our cases, separate mechanisms can be identified. In Table 1, as an example, mechanisms identified as important include mobility, maintaining contact, and avoiding dissembling networks. These mechanisms are interpreted in the contexts in which they are described by participants and our understanding of context from the contextual methods, which include but are not exclusive to the purposeful sampling strategy.

Table 1: A concise example of theorising in and between cases

Sample	Nature of community (regularity)	Mobility (mechanism)	Maintaining contact (mechanism)	Avoiding dissembling networks (mechanism)
Case Low income participant—(10% most deprived in the UK)	Tight-knit in neighbourhood and some family members in wider city	Walks with pram, occasional taxi in bad weather	Text (limited by credit), face-to-face	Face-to-face
Case BME—relatively affluent participant (strong links to other BME (Pakistan NW Frontier Province) populations in UK and in Pakistan	International and other cities with high concentration of BME. Active in local politics of place in BME group and beyond.	Drives car, flies	Text, organised family gatherings— e.g. Marriages / funerals— meeting relatives. Being known in the street.	Face-to-face Telephone (if international)
Case Young professional— graduates attracted to the area by culture, proximity to work	In place, strong ties to cultural and voluntary activities. Dispersed and widespread across UK	Drives car	Text, landline, e-mail. Nodding acquaintances in the street.	Face-to-face
Case Student—over 40% of population of place, Russell Group University, living away from (relatively affluent) home	In place invariably with other students but nodding to others, parents' place of residence, and school friends' university towns	Uses public transport extensively / car; walks	Text, Skype, social networking sites. Nodding, keeping an eye on the neighbour, playing with the kids.	Face-to-face

Our purpose in analysis is to provide both valid - accurate descriptions (Silverman, 2001) - and theory which is generalizable because it explicitly incorporates an understanding of the context in which the research was done (Lincoln and Guba, 2000). Looking across each of the rows in the table particular analytic accounts can be produced of the ways in which each group builds and maintains community. Locality is clearly important here, for instance. Low income groups do their community in relatively small areas of the place in which we did the research. So too, do the BME, young professionals, and students. But these groups, aided by increased mobility and resources, span much wider geographies. We can provide particular accounts, nested in their context, about how these groups 'do' community.

The differences and similarities seen when moving from case-to-case are also important in the analysis. They provide sociologically interesting accounts. The

casing approach aids theorisation. It limits the possibilities of abstracted empiricism, that is making sweeping claims from our findings, because we are obliged to provide satisfactory explanations of the dissonance and sameness between cases and explain these in their contexts. As an example, in the field of community studies observations about community being "more like a network… abstract and lacks visibility and unity… more an imagined condition than a symbolically shaped reality based on fixed reference points" (Delanty, 2003:188), and about the end of attachment to place and to locality do not adequately capture their nuanced and relational nature of networks, neighbourhoods, and communities. An important finding in Connected Lives is how important locality is, the pride and sense of belonging it invokes even among groups that appear to be transitory, like the students and young professionals. So too, we must question theories about the ascendancy of electronic communication as the means to maintain community in an increasingly networked world, the rise of individualistic anomie, contractual relationships, and networks of choice. While these accounts appear superficially compelling, our research emphasises how important face-to-face contact is in maintaining networks, neighbourhoods, and communities, even for the most plugged-in group in our study, the students.

Methodological issues from analysis

- Qualitative research generates large data sets that must be managed. Casing provides a practical filing strategy for doing this.
- Cases are developed as a methodological strategy to enable analysis and the answering of research questions.
- Cases allow for theorisation within a case and theorisation between cases.
- Theorisation should account for sameness and difference within and between cases.
- The methodological strategy of casing ensures that context is always present in the analysis.
- Two quite distinct kinds of findings may be produced from research using these methods of analysis. These are particular and generalizable findings.
- Particular findings are evaluative of social processes in context and do not seek to move beyond the context of the research. These findings are useful to local policy makers, for instance.
- Generalizable findings can not be universally applied across time and space. These findings must be understood to be context dependent. Most often they are presented as theories about relationships between social action and social institutions that can be tested in other contexts.
- Often the applicability of these generalizable findings in other contexts will be apparent to the informed observer. These findings lend themselves to sociological theory development and to strategic policy making.

Section 6: What next?

We set ourselves the challenge of understanding what happens on the line between two nodes in a network, and to investigate the dynamic, contingent, and processual nature of networks, neighbourhoods, and communities. The methods we used sought to understand how networks, neighbourhoods, and communities are built, maintained, and break down. And further to provide concrete explanations of how these social

processes link real life experience, with their complexities and dynamism, to contexts and circumstances. We achieved this in two ways. First, through refining our understanding of the representativeness of our sample throughout the research. Reflecting on what we learnt about context—from our methods to understand context—and what we learnt from participants—through the three participatory methods. In addition, casing sets boundaries on a potentially limitless open system that is the social world. This analytic approach means that the relationships we are investigating are always linked to the context in which these dynamic and social processes are played out. Further, through theorising within and between cases we are able to answer practical research questions about what happens on networks, how neighbourhoods are important to people, and how communities are used in people's lives.

The different methods we applied produce different insights into these networks. Combining different methods contribute to fuller accounts of social networks, including, we suggest, an insight into their real life contradictions and complexities. We can identify common dimensions to networks and what they are used for, such as friendship, support, security, and employment, for instance. And in addition we learn a great deal about how networks are built and maintained including the technologies used, the importance of bumping into people, seeing them in the street and knowing they are there, and the work needed to maintain networks across space and time. The importance of face-to-face contact can not be over-emphasised, even in an increasingly networked world. We learn about how networking practices have limits, particularly for some of our participants, that have significant implications for their lives. Access to resources are important. We have seen how socio-economic gradients affect the ability to maintain networks, neighbourhoods, and communities.

Unlike more formal quantitative methods of network analysis, which as are constrained by the mathematical features of the network. Our analysis provides a sociological account at a different level of abstraction and formalisation. It provides rich accounts of what happens on a network, albeit within the contextual boundaries we have set.

Although we planned to do a more formal quantitative network analysis we were unable to do so. Our plan was to investigate methodologically how the qualitatively-driven mixed methods of Connected Lives could inform the design and analysis of quantitative network analysis. From our research we suggest that the methodology we have described can do two things. First, it can provide findings that generate hypotheses to be tested. And second, the accounts from our research of networks, neighbourhoods, and communities can fill-in network diagrams, Connected Lives, through its qualitatively-driven mixed method approach, provides rich accounts of the material, relational, and embodied practices of networks, neighbourhoods, and communities that are contextually generalizable. These qualitatively driven mixed methods allow us to theorise social processes and contribute accounts of the relationships through which networks, neighbourhoods, and communities are built, maintained, and break down.

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