CONNECTED COMMUNITIES

How social networks power and sustain the Big Society

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RSA Projects

Connected
Communities

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1   With substantial contributions on data collection, inputting and analysis from Damani Goldstein, Rohan Talbot and Alison Gilchrist.

EXECUTIVE SUMMARY

This report gives an account of the first year of the RSA Connected Communities project. Our work draws on a wealth of recent research that reveals the striking extent to which social networks affect our behaviour and wellbeing. We are working in New Cross Gate in southeast London, and in Knowle West, Bristol, to apply this knowledge at a local level, by examining how social networks might help communities to help themselves.[2]

We undertook this research as a response to RSA staff and Fellows' experience of community development and regeneration, and it is situated in the context of depleted public sector funding for such work. The explosion of interest in, methods of examining, and research on networks from diverse disciplines (such as computational mathematics, online social networking, biology, and business productivity), prompted us to explore how networks might offer a fresh view of working in neighbourhoods. Alongside this aim, the RSA is working to better understand and mobilise our network of Fellows as a force for social change, and has drawn on this experience to inform our thinking. We began our research with an open-ended question as to how much social networks, as opposed to more traditional concepts of 'community', can affect community strategies and outcomes. Our work aims to inform the policies and practices required to power and sustain the Big Society.

Our research focused on real world social networks, as opposed to online interactions, although we recognise that in some cases online communities can play a part in the former. The principal lesson we have drawn from community policy and practice over the last two decades is that defining 'communities' solely in geographic terms has major limitations. We believe that a fresh approach to developing communities, based on mapping local social networks in as detailed a manner as possible, is now required, and we have begun to apply this understanding in our action and research.

Year one of the project, outlined here, has involved developing our theoretical account and mapping existing social networks. Year two will build on this account in partnership with local residents, co-designing and trialling network-based interventions to address local problems. Our findings are based on interviews with 280 residents in the New Cross Gate area, which generated a community network of over 1,400 people and institutions.

In year three, Connected Communities will collaborate with the RSA Social Brain project to deepen our understanding of the relationship between social networks and behaviour change, testing the impact of behaviour change interventions through network models.

Please see the brief glossary of terms for further explanation of some of the concepts employed throughout this report.

The principal lesson we have drawn from community policy and practice over the last two decades is that defining 'communities' solely in geographic terms has major limitations.

The main points of this report include:

Why Social Networks?

A social network perspective uniquely offers:

- A social structure that is neither individualistic nor holistic, but fundamentally relational.

- A way to identify and measure social connectedness which indicates patterns of inclusion and exclusion.

- An understanding of 'weak ties' and their role in improving employment opportunities.

- A perspective on the transmission of behaviours and attitudes.

- A visual tool to foster social reflexivity and shape pro-social attitudes.

Policy

- *Any* public policy intervention benefits from an understanding of social networks.

- Social network research is a relatively benign and participatory form of research.

- Creating and visualising social networks increases social reflexivity, which may help to foster pro-social behaviour.

- Understanding patterns of connectivity and the transmission of social values and behaviours offers a new approach to policy making, in which small interventions have the potential to make a big impact through network effects.

What does our research mean for the Big Society?[3]

- Social capital is the currency of the Big Society and social networks hold the reserves of that currency.

- 'Big' can be measured in terms of network size and shape to make the 'Big Society' more tangible.

- We can use social network information to help identify community organisers.

- Network information can direct strategies to promote participative behaviour and volunteering.

- One of the most constructive ways to contribute to your 'square mile' is by measuring the social networks it contains.

- Network perspectives can help to clarify what 'efficiency' means at a local level.

2   Thumbnail portraits of New Cross Gate and Knowle West are given in the Research Methods section. The focus of this report is offline 'real-world' networks and concentrates on our research in New Cross Gate. Although we do make reference to our work in Knowle West in this report, that research focuses on socio-digital capital and will be the subject of a future RSA Connected Communities report.

3   'Our Conservative - Liberal Democrat Government has come together with a driving ambition: to put more power and opportunity into people's hands. We want to give citizens, communities and local government the power and information they need to come together, solve the problems they face and build the Britain they want. We want society – the families, networks, neighbourhoods and communities that form the fabric of so much of our everyday lives – to be bigger and stronger than ever before. Only when people and communities are given more power and take more responsibility can we achieve fairness and opportunity for all.' http://www.cabinetoffice.gov.uk/media/407789/building-big-society.pdf

Lessons from Community Policy and Practice

- An exclusively geographical conception of community is unhelpful.

- Recent policy emphasis on social capital and social assets needs to be augmented through a more detailed study of social networks.

Main Research Findings

- A quarter of our respondents could not name anyone in their social network who they thought was **a)** good at bringing people together or **b)** could help them contact someone with influence, power or responsibility to change things locally.

- One in fifty of our respondents did not know anybody in their local area that supported them or helped them to make changes in any way.

- 'Familiar strangers' like postmen and dustmen appear to be under-utilised community resources; in our case study more people recognise and find value in their postman than their local councillor.

- People who are relatively isolated are not making use of the connections they have.

- Our geographic sense of what is central to a community is highly misleading, and often conflicts with measures of network centrality.

- Community hubs, including pubs and sports clubs, are an important aspect of community resilience and empowerment.

- People who value neighbourliness are more likely to have large social networks.

'Familiar strangers' like postmen and dustmen appear to be under-utilised community resources; in our case study more people recognise and find value in their postman than their local councillor.

ACKNOWLEDGEMENTS

ABOUT

THE RSA

For over 250 years the Royal Society for the encouragement of Arts, Manufactures and Commerce (RSA) has been a cradle of enlightenment thinking and a force for social progress. Our approach is multi-disciplinary, politically independent and combines cutting edge research and policy development with practical action.

We encourage public discourse and critical debate by providing platforms for leading experts to share new ideas on contemporary issues. Our projects generate new models for tackling the social challenges of today and our work is supported by a 27,000 strong Fellowship — achievers and influencers from every field with a real commitment to progressive social change.

THE AUTHORS

Jonathan Rowson holds a first class degree in Politics, Philosophy, and Economics from Oxford University, an Ed.M from Harvard University in Mind, Brain and Education, and a PhD from Bristol University. His Doctoral thesis is an inter-disciplinary and multi-method examination of the concept of wisdom, including a detailed analysis of the challenge of overcoming the psycho-social constraints that prevent people becoming 'wiser', similar to what the RSA terms 'The Social Aspiration Gap'. A chess Grandmaster, Jonathan was British Champion for three consecutive years 2004-06. Jonathan now leads the RSA's Social Brain project.

Steve Broome is Director of Research at the RSA, leading our Connected Communities programme, which includes work on drug services and recovery, and social network research methods. Steve has 12 years experience of researching community regeneration and economic development agendas. He specialises in understanding impact through mixed methods research designs. He previously worked on a London New Deal for Communities programme, where he led evaluation and strategy, community safety and community development programmes.

Alasdair Jones holds a PhD from the London School of Economics. His thesis explored the ways that public space is produced not only through design but also through social use and regulation. Prior to joining the RSA, Alasdair was the London Coordinator for Living Streets, a charity that seeks to build thriving communities through improvements to the public realm. Alasdair is now part of the Transport and Health Group at the London School of Hygiene and Tropical Medicine.

SECTION 1: INTRODUCTION

'Look at what connects and separates people'
— **The I Ching** [4]

The call for stronger communities is pervasive. Politicians and people in every walk of life seem convinced that communities can solve social ills and build a happier, more fulfilled society. But if communities are the answer, what exactly is the question? How do we get people to cooperate? How can we be more socially productive with less money? How can we rebuild trust in civic institutions and in each other? What might the Conservative–Liberal Democrat coalition government's vision of the Big Society look like in practice?

Our research was inspired by the experience of RSA staff and Fellows in researching and delivering various approaches to community regeneration in its broadest sense. The explosion of interest in, methods of examining, and research on networks from diverse disciplines (such as computational mathematics, online social networking, biology, and business productivity), prompted us to explore how networks might offer a fresh view of working in neighbourhoods. Alongside this, the RSA is working to better understand and mobilise our network of Fellows as a force for social change, and has drawn on this experience to inform our thinking.

A major objective of this report is to inform practical steps through which the coalition government may attempt to turn their vision of the Big Society into constructive policy interventions. The challenge is that the vision of the Big Society is developing, but far from complete. As community development consultant, **Gabriel Chanan**, recently remarked: *There is no underlying coherence to (The Big Society) that is really explicit yet. That has to be either found or made.*[5]

If our notion of community is based on a nostalgic longing for simplicity, belonging and harmony, then it may not be the answer to our questions. A more contemporary concept of communities needs to be employed, one which recognises the dynamism, creativity, and responsiveness – as well as the conflict – they embody. We also need a more scientific approach which recognises that a geographically-defined community comprises a diverse range of ties and interests that vary in strength and that are sometimes in tension. We need to understand these social networks at a micro level. Moreover, it is important to recognise that community policy comprises elements of health, education and law and order policy, and principles that inform our understanding of 'communities' is therefore relevant to policymaking more generally.

The explanatory scope of social network theory is currently unclear. Although it would be simplistic to explain a recession or a war in terms of social networks, any social explanation that ignores network effects on human behaviour is likely to be partial at best. Moreover, social networks can help explain the spread of important social phenomena such as happiness or obesity.

4 **The I Ching/Book of Changes**, ed. by Wilhelm B, translated by Baynes C, 1967, Princeton University Press. The advice to 'look at what connects and separates people' is given in several of the 64 hexagrams, of what is one of the oldest texts in the world. David Halpern indicates that the idea of 'social capital' is recognizable in the I CHING (Halpern D, Social Capital, 2005, p4, Polity Press).

5 http://socialbysocial.net/group/designingforcivilsociety/forum/topics/big-society-round-table-yields

RSA Projects differ from traditional think-tanks in the sense that we aim to make a real world impact through our projects as well as influence policymakers through our research. We attempt to put our ideas into action. In New Cross Gate, southeast London, for example, we designed a social network survey tool with which to engage the local population in an attempt to map some aspects of the social network in that area. This report follows through our ideas with action throughout, intertwining theory with lessons learned from real-world practice.

SOCIAL NETWORKS IN THE BIG SOCIETY

The **RSA Connected Communities** project offers a theoretical perspective and practical approach that contributes to building coherence around the Big Society. Most conceptions of the Big Society recognise the importance of what **David Halpern** calls our 'hidden wealth', namely the non-financial resources comprised of local skills, trust and know-how, useful contacts and care-based exchanges.[6] Our approach not only recognises the value of hidden wealth, but begins to identify how it is structured, accessed and contested at a local level.

IMPROVING 'EFFICIENCY' IN THE AGE OF AUSTERITY

However the vision is conceived, the coalition government seeks to build the Big Society in the context of 'the age of austerity', when citizens are called upon to do more with less.[7] We need to make efficient use of existing social, financial and private resources, but deciding what efficiency means in this context is a large part of the challenge, as indicated by a 2009 Demos report, 'Getting More for Less':

'Efficiency we imagine is objective, statistical and neutral. In reality, efficiency is a contested term. There is no agreed definition on what really constitutes an 'efficient' service. Everything depends upon what we choose to measure, and this requires judgments and choices about what we prioritise.'[8]

Our research indicates that an enlightened understanding of efficiency requires a deeper appreciation for how non-financial resources are accessed and shared across social networks, often informally, and that social network analysis can, in principle, indicate which people and institutions are best placed to make good use of funding. Such patterns of connectivity are not just a helpful diagnostic device, but also a mechanism through which small policy interventions can potentially lead to what sociologist **Nicholas Christakis** terms 'social contagion', or the spreading of behaviours and values.

6   Halpern D, **The Hidden Wealth of Nations**, 2010, Polity Press. Halpern outlined his account of hidden wealth at a recent RSA event: http://www.thersa.org/events/vision/vision-videos/david-halpern-the-hidden-wealth-of-nations.

7   The Institute of Fiscal Studies has recently argued that the June 2010 Emergency Budget was regressive in the sense that it will hit the poor relatively hard. Browne J and Levell P, **The distributional effect of tax and benefit reforms to be introduced between June 2010 and April 2014: a Revised Assessment,** Institute for Fiscal Studies, August, 2010

8   Bartlett J, **Getting More for Less**, Demos,2009.

9   http://www.thersa.org/events/vision/vision-videos/nicholas-christakis-connected

10 Anti-social behaviour disregards or subverts the interests and experiences of others. In anti-social behaviour, our actions are not directed beyond our own limited conception of personal welfare. In pro-social behaviour, which is based on an enlightened view of self-interest, the self identifies itself with a greater whole and acts on its behalf.

11 Christakis N and Fowler J, **Cooperative Behaviour Cascades in Human Social Networks**, Proceedings of the National Academy of Sciences of the United States of America, Kahneman D (ed), January 25, 2010.

12 **MindSpace: Influencing Behaviour Through Public Policy**, Cabinet Office, March 02, 2010 p13. Vol. 107 no 12.

13 Frankel J and Sharp L, 'Respondent Burden: A Test of Some Common Assumptions', **Public Opinion Quarterly**, 1983, 47, p36-53

14 Ormerod P, **N Squared: Public policy and the power of networks**, 2010, p36, RSA Pamphlets

15 http://www.matthewtaylorsblog.com/thersa/please-read-this-it-might-just-be-important

> *Understanding network structures increases the likelihood of a desired form of behaviour spreading.*

SPREADING COOPERATIVE BEHAVIOUR

'I think there is a phenomenally deep connection between networks and goodness. I think the reason we form social networks in our lives is precisely to create and sustain all kinds of good and desirable properties.'
— **Nicholas Christakis** [9]

Many social problems cannot be tackled by government alone, including crime, unemployment and anti-social behaviour. Such problems require us to engender pro-social[10], cooperative behaviour, and social networks can help to do so in at least two ways.

First, pro-social behaviour appears to be learned behaviour, and it can be spread and disseminated between people. Understanding network structures increases the likelihood of a desired form of behaviour spreading.[11] Policymakers do not seem to have fully grasped the power of this insight. For instance, the recent Cabinet Office discussion document on behaviour change, *'Mindspace'*, argues that *'the most effective and sustainable changes in behaviour will come from the successful integration of cultural, regulatory and individual change'*.[12] We argue that all of these changes, while important, are strongly influenced by the role of network structures and the flow of social values that transit through them. Behaviour change interventions are likely to be partially successful at best, unless the powerful influence of social networks is acknowledged.

Secondly, while some forms of social research are viewed as strenuous impersonal statistical exercises by participants[13], the process of researching local social networks and then relaying social network diagrams back to research participants helps people to think of themselves in network terms, and begin to feel their interdependence at a more personal and daily level. Enduring behaviour change requires such a shift in perspective, and the social network research process can play a part in creating this.

TRANSFORMING POLICY

'Ignoring network effects simply means that we carry on with the same model, spending vast amounts of money, with at best a rather hit-or-miss success rate.' — **Paul Ormerod**[14]

While the primary objective of the Connected Communities programme is to make a positive impact on particular local communities, we believe understanding and utilising social networks may provide an important tool to change the nature of policymaking more generally.

Existing policy interventions tend to be large scale and expensive, and deliver relatively marginal improvement in outcomes, such as lowering unemployment or raising pupil attainment by fractions of percentage points. Such policies typically minimise risk through systems of regulation, audit, and accountability. However, such an instrumental approach may serve to perpetuate problems in policy areas where understanding complexity and emergence is critical, or where the aim is to spread a particular kind of pro-social behaviour.[15]

By contrast, social network interventions can attempt to create benign social viruses, through which small interventions seek to create major impacts through contagion effects. We are all on the edge of our competence with respect to the viability and success of such an approach, but as **Nassim Taleb** has argued, and **David Cameron** has accepted, successful policy has to be built as much around what we don't know as what we do.[16] In this respect, an emphasis on social networks could potentially change the focus and design of public policy.

As methods for the collection and analysis of social network data become more precise and scientific, for instance through hand-held devices that integrate global positioning system technology with social network analysis software, it is conceivable that the social impact of interventions could be measured over weeks rather than over years. The challenge for policymakers would then be to rethink their attitude to risk and accountability, because while some such interventions might work spectacularly well at minimal cost, they will sometimes have no impact at all, and may often have an impact very different to those planned, and not always in a positive way. As **Paul Ormerod** argues in a recent RSA publication:

'There is inherent uncertainty about the impact of policy in a world in which network effects are important, which no amount of cleverness can overcome...This is not at all a comfortable world for the policy maker. But it is how large sections of the social and economic world really are.'[17]

If we accept the role of social networks in, for example, shaping attitudes and behaviours, improving access to jobs and influencing public health, it becomes obvious that policy-makers need to factor them in to the planning and evaluation of policy. However, to do so is to call into question the planning, predicting, controlling and evaluating that underpins much of existing policy. As Ormerod indicates, there is therefore a temptation not to engage with a networked view of the world at all:

'One possible view of the networked world is that little or nothing should be done, on the grounds that we have little or no idea of the consequences of introducing any particular policy. Far from it. The potential gains from more effective policies built on a scientific understanding of how the world operates are enormous.'[18]

These potential gains, and the scientific understanding, concerns unpredictable emergent properties rather than empirical facts. Our position is to get the work underway, and do what we can to illustrate the promises and perils of this approach and the conditions that help or hinder. As **Geoff Mulgan**, director of the Young Foundation points out, governments typically follow rather than lead on such ideas:

'One of the optical illusions of government is that those inside of it think of themselves as drivers of change...Yet most far reaching ideas and changes come from outside...Most radical change has to start outside government, usually from the bottom (up) rather than the top (down)...New ideas need time to evolve, preferably away from the spotlight. Governments are more often vehicles than initiators. They play a pivotal role in embedding those changes, but typically they get involved only at a late stage.'[19]

16   http://www.thersa.org/events/vision/vision-videos/david-cameron-in-conversation-with-nassim-taleb

17   Ormerod P, 2010, op. cit.

18   Ormerod P, 2010, p37-38, op cit.

19   Mulgan G, **Good and Bad Power: The Ideals and Betrayals of Government**, 2007, Allen Lane.

20   http://www.puttingpeoplefirst.org.uk/BCC/about/PuttingPeopleFirst/

21   http://www.nytimes.com/2010/06/08/technology/08homefront.html?_r=1

...social network interventions can attempt to create benign social viruses, through which small interventions seek to create major impacts through contagion effects

We believe that understanding and utilising social networks should inform and can benefit any policy area. There are already diverse examples: the Department of Health's Putting People First programme, which aims to transform adult social care, explicitly recognises the importance of social capital and networks in helping people to gain control over their own lives.[20] At the other extreme, military operations now seek to build support for their actions by influencing local social networks through key individual hubs, and gather intelligence through online social networking.[21] Christakis and Fowler have illustrated the policy potential of social networks in addressing public health issues such as smoking and obesity, and raising voter registration and turn out.

Even policy areas that do not immediately appear to benefit from network approaches, such as reducing pensioner poverty, can augment traditional approaches such as tax adjustments and fuel payments. Connecting pensioners to richer, more supportive networks can reduce isolation and disempowerment, with the knock-on effects of reducing social care costs. Fostering informal exchanges and support through networks, and the knowledge and opportunity gained through stronger social ties, can lead to reduced spend by pensioners, increasing disposable income. These lines of thinking are critical in an age of austerity.

CHALLENGES

While we are excited by the possibilities of visualising and using social networks at a community level, we acknowledge that we are at an early stage in our project, and are still in the process of refining our exploratory research methods and building the evidence base of our argument. Social networks give us powerful information about social relationships, but they tell us little about how individual psychologies or global markets impact on communities, and cannot offer a comprehensive account in themselves.

In what follows, our empirical findings, from quantitative data, qualitative research, case studies and social network analysis (outlined in the methods section below) are integrated into the text as evidence to support our overall narrative and argument. While we have strived to build a strong evidence base for our claims, researching social networks is an exacting process, and most of our findings should be regarded as indicative and exploratory, rather than representative and final. In this report, we have deliberately selected parts of the analysis we have undertaken to date in order to illustrate the points we explore and put forward. Forthcoming RSA briefing papers will excavate the rich, complex data we have collected to analyse themes in more detail.

We are also realistic about what our approach might ultimately achieve. While we believe social networks offer a powerful tool that may well enable communities to solve problems and shape circumstances more effectively, no social network can provide a substitute for capital investment, or form the rationale for significantly withdrawing support and funding from areas where entrenched disadvantage is acute. We view our work as an important and timely perspective in a climate of economic austerity, not as a panacea.

STRUCTURE

The structure of this report is as follows:

— **Section one** outlines our perspective on the main themes of the report, including communities and social networks. We contextualise our approach with respect to the Coalition Government's aim to build the Big Society in an austere economic climate. We also consider the potential of social network theory and measurement to transform policy-making more generally.

— **Section two** begins with some conceptual clarifications, and draws out some important lessons learned from community policy in recent years. The principal shift is a move from an area and deficit based model of communities to an emphasis on social assets, which we are developing by focusing on particular aspects of social networks.

— **Section three** explains our methodology, and provides thumbnail portraits of our action research sites: New Cross Gate, southeast London and Knowle West, Bristol.

— **Section four** outlines the theory of social network structure and function, and examines each aspect of this theory in light of the emerging data from our fieldwork in New Cross Gate and Knowle West. It also discusses the potential benefit of social network analysis and reflection as a process which itself strengthens networks.

— **Section five** elaborates our account of how this network perspective can help foster qualities communities need in the current economic climate, like social inclusion, resilience and empowerment.

— **Section six** is about the process of building connected communities, and using social networks to create social capital by placing more emphasis on the role of social networking in helping to weave certain kinds of social networks that we believe to be desirable for communities.

— **Section seven** attempts to address how our approach to community could inform the government's vision of the Big Society.

— **Our Afterword** outlines plans for year two of the Connected Communities programme.

SECTION 2: RETHINKING COMMUNITY

We are all members of several communities and our ties with them can increase or decrease. It is both illogical and dangerous to corral people as if they could only belong to one community.
— Amartya Sen[22]

In this section we begin by making a distinction between two concepts that are often conflated: social networks and social capital. We do this in order to highlight a distinct property of social networks – that they can be visualised. Social network analysis can inform the optimal use of social goods (community assets which are publicly available but scarce and contested).

Subsequently, we draw some lessons from the modern history of community policy and practice, including the limitations of viewing communities in exclusively geographical terms, and we examine some recent research on social assets that points to the need for a deeper understanding of the structure and function of social networks.

2.1 SOCIAL NETWORKS, SOCIAL CAPITAL AND SOCIAL GOODS

'Things should be as simple as possible, but no simpler.'
— Albert Einstein

As a rough and ready heuristic, the concept of social capital is invaluable, because it allows researchers to put into operation the obvious point that relationships (social) have considerable value (capital). Yet as an analytical device the concept is rightly contested, because there are many kinds of relationships, and their value differs across contexts, in degree and in kind. Indeed, economist **Ben Fine** describes social capital as a *'totally chaotic, ambiguous, and general category that can be used as a notional umbrella term for almost any purpose.'*[23]

We accept that the concept of social capital is not precisely analytically defined, but political scientist **Robert Putnam**, perhaps the most famous proponent of social capital, offers the following minimalist definition: *'Social connections and the attendant norms and trust.'*[24] The Connected Communities programme attempts to make sense of what is meant by 'the attendant' in this context. How do social networks shape social norms at a local level, and can such norms, in turn, help to build trust such that informal transactions become easier, people feel safer, and more likely to help each other out, for instance with child care, shopping, or gardening, in a way that is befitting of the coalition government's vision of the Big Society?

22 Sen A, **Identity and Violence: The Illusion of Destiny**, 2006, Allen Lane.

23 Halpern D, **Social Capital**, 2005, p13, Polity Press. For the full critique See Fine B, **Theories of Social Capital: Researchers Behaving Badly**, 2010, Pluto Press.

24 Putnam R, 'Tuning in, Tuning out: the strange disappearance of social capital in America'. Political Science and Politics, 1995 28: 1-20.

THE VALUE OF SOCIAL CAPITAL

The following vignette offers an illustration of the premise of our research. Based on a discussion between our research team and friends of the project in its design phase, it illustrates why mapping social networks may help to create the kinds of social interactions we should all care about: [25]

Our friend lives at the end of the terrace and his next door neighbour, an elderly man, recently moved in, tripped and fell into his front garden. My mate came out and took him to the café for a cup of tea. Long story short, they now meet for tea each week or so, he helps him with his garden, he's plugged into the lunchtime social specials they have there, the police safer neighbourhood lot meet there and now know him and look out for him. They have weekend reading sessions for kids. And the café itself buys all its ingredients from the other local traders, and they're completely into fresh healthy ingredients through a local network.

It's all probably much more effective than anything the Council could deliver by itself. You could start to see it and encourage it as the hub of a network for social good.

But isn't who goes there just opportunistic to an extent? If you could identify who uses places like this café and why; how to make them more inclusive and understand and address local problems effectively; how to identify and use these kinds of resources in the first place, well...It's kind of social enterprise through reconceived existing networks. And if you could encourage other positive spin-offs, what good stuff could people who meet there together do? That's what you're talking about isn't it?

Measuring and mapping existing social networks is a means to an end in building the kinds of supportive and productive relationships encapsulated in the term 'social capital'. Indeed, while social networks and social capital are inextricably linked, social networks are important in their own right. As a term, 'social capital' is widely used by sociologists, economists and politicians, and has to an extent become theoretically saturated, while social networks can be measured empirically and represented visually. We are just beginning to understand how powerful these patterns of connectivity might be as a tool for evidence-based policy and practice.

Social networks are therefore a necessary condition for social capital, and we focus on examining these necessary conditions, and sometimes their absence, with a view to informing practical interventions. We care about norms and trust, but if these phenomena are, as Putnam suggests, 'attendant' on social connections, then there is an obvious case for focusing on the connections themselves.

Such an approach is timely because social networks have become easier to map and measure in recent years, due to the proliferation of telephone and internet data and increasingly sophisticated social network analysis software. These refinements in social network research may allow us to understand communities as the emergent properties of networks, in a manner similar to the way that the development of brain imaging allowed us to understand cognition as the emergent properties of neural networks.

However, the technical language of social networks is nascent and currently abstract and unfamiliar, so we use a more familiar lexicon of social capital. We have been guided by political scientist **David Halpern's** analysis of the concept, which recognises the range of meanings and applications given to social capital, but contends that they are part of the same 'sociological genus'. This genus expresses itself through components (networks, norms and sanctions); level of analysis (micro, meso and macro); and function (bonding, bridging and linking).[26]

In Halpern's terms, the salient aspects of social capital in this report are networks and norms at the meso (community) and micro (individual) levels, with an emphasis on bridging between groups and linking to sources of power and influence. We recognise these components and levels of analysis are not independent of other branches of the social capital framework, namely individual psychologies, government policy or global markets, but we have chosen to narrow our focus in order to relate our network research to future practical action.

One major challenge to the role of social capital in community regeneration is that it is as likely to be used as a private asset for individuals as a public good for communities.[27] At a recent seminar to discuss the emerging notion of the Big Society, **Barry Quirk**, CEO of the London Borough of Lewisham, distinguished between social goods, community assets which are publicly available but scarce and contested, and public goods, which are genuinely a resource for the whole community.

25 http://rsaconnectedcommunities.wordpress.
    com/2009/02/04/meso-soup/

26 Halpern D, 2005, op. cit

27 Ibid

Quirk argues that a major challenge for local authorities is trying to ensure that places like community centres are public as well as social goods. In our research, Somerville Adventure Playground in New Cross Gate emerged as an example of a social good that is not currently functioning as a public good due to network effects **(see section 6.2).**[28]

When communities are viewed as large cohesive groups, a community centre may operate as a public good in the sense that one person's use of it need not interfere with another's use. However, when communities are viewed as places that feature conflict between groups with competing aims or values, such public places become contested social goods. Social network analysis is potentially valuable in helping to make social goods less contested. It may, for instance, show that two groups that felt they were radically different may have common members, or be connected to the other group through a common tie. In this way, new common ground and shared agendas are identified as platforms for conflict resolution, mutual understanding, trust and potential collaboration.

Ideas of social networks, capital and social and public goods are key to re-imagining how we have come to formulate community policy and work in deprived neighbourhoods, principally through supplementary programmes such as area-based initiatives.

2.2 THE RISE AND FALL OF AREA-BASED INITIATIVES

The design of area-based initiatives over the past few decades, from City Challenge (1992-1998) through to the Single Regeneration Budget (1994-2004), culminating in New Deal for Communities (NDC, 2000-2011) has increasingly placed communities at the heart of the regeneration process. The rationale for the geographic conception of community that underpinned these initiatives stemmed partly from New Labour's emphasis on the devolution of power, together with recommendations by Policy Action Teams that if communities led themselves, they would be better placed to drive participation, local ownership and capacity building.

Longitudinal data[29] on the impact of NDCs shows absolute improvements on around 80% of performance indicators, across community safety, education, health, and physical environment.[30] For instance, there has been a 7% increase in people's perceived ability to influence decisions that affect their local area in the 2002-2008 period and a 12% increase in people feeling part of the community, but, notably, no significant increase in people taking part in education and training, and no increase in employment.[31]

More generally, the NDC model did not always work as policy makers hoped it might, and the approach has suffered from difficulties that have dogged the area-based approach for years, particularly unrealistic expectations about what can be achieved, shallow and unrepresentative local engagement, and the periodic burnout of a small core of community activists.

Social network analysis is potentially valuable in helping to make social goods less contested.

28　Barry Quirk, presentation at Big Society Public Services Seminar: **Revolution or evolution?** Institute for Government, 6 July 2010.

29　Data collected on the same subjects at multiple points in time. For a full definition see: http://www.caldercenter.org/whatis.cfm

30　Ipsos-MORI, **National Evaluation of New Deal for Communities Programme: Household Survey Data, 2002–2008**.

31　http://extra.shu.ac.uk/ndc/downloads/general/ Volume%20two%20-%20Involving%20local%20 people%20in%20regeneration.pdf

32　Communities and Local Government, **Making deprived areas better places to live: Evidence from the New Deal for Communities Programme The New Deal for Communities National Evaluation: Final Report – Volume 3**, 2010.

33　In some models, social capital is more important for economic growth than human capital (Whitely, **Economic Growth and Social Capital,** 1997, p18, Political Economy Research Centre, University of Sheffield). Widespread trust plus shared informal norms and social habits reduce crime (Sampson et al, Neighbourhoods and Violent Crime: a multilevel study of collective efficacy , 1997, **Science**, 277, p918-24). The impact of social capital on health has been known since Durkheim's work on egoistic suicide in 1897 and the positive relationship between social capital and educational attainment is indicated in Baron S, Field J, and Schuller T, **Social Capital: Critical Perspectives**, 2000, Oxford University Press. All sources traced via Halpern D, **Social Capital**, 2005, Polity Press.

34　Communities and Local Government, 2010, op. cit

35　Granovetter M, The Strength of Weak Ties, 1973, **American Journal of Sociology**, Vol. 78, Issue 6, p1360- 80, and Granovetter, M, The Strength of the Weak Ties Revisited, 1983, **Sociological Theory**, Vol. 1, p201-33.

36　Halpern D, 2005, op. cit.

One perplexing finding to emerge from the recent data is that in NDC communities, at an aggregate level, indicators of social capital have failed to improve beyond the increases experienced by other similarly deprived neighbourhoods.[32] Given NDCs' comprehensive approach, and the research evidence on the importance of social capital in affecting economic performance, crime, health and education – all NDC priorities – this is a challenging result.[33]

One possible explanation is in the limitations of how social capital has been measured. In this context, it was based on individual responses to questions on trust in local institutions, feelings of belonging, and the extent to which people value and trust all other local people taken as a whole. It excluded the value of social relationships through networks, which we believe is more critical.

Additionally, a 2010 Department of Communities and Local Government (CLG) report suggests that possible explanations lie in ambiguity in the aims of resident participation and the fact that for many residents, their experience of participation was not a wholly positive one. Also, not enough residents engaged in NDC activities to generate significant impacts on social capital at the community level.[34]

We believe that a further and more fundamental explanation lies in the limitations of approaching communities in solely geographical terms. Much of the existing approach is contained within specific area-based initiatives (ABIs) – publicly-funded pilot programmes targeting areas of social or economic disadvantage. These programmes aim to improve residents' quality of life across multiple outcomes, including employment, skills development, health and crime. But in an overcrowded regeneration landscape cluttered with programmes and agencies, there is a danger of initiative and participation fatigue and a perception that resident initiative and interaction requires some form of 'professional' public or third-sector brokerage, rather than succeeding purely on an informal and self-organised basis.

Some area-based initiatives with tightly-defined and protected geographical boundaries can reinforce isolation and limit the social resources available to that area. Such boundaries create strong internal identities but weaken the ability and willingness to connect to and draw support from other areas. ABI rules that determine who can benefit from expenditure and who can participate in decision making – namely ABI residents – reinforce these divides. As a result, communities can fail to build the bridges across social and economic divides that have been shown, particularly through American sociologist **Mark Granovetter's** work on the value of 'weak ties', to improve economic performance.[35] For instance, we know that if the number of those unemployed in an area exceeds around one in four, the likelihood of escaping poverty drops dramatically.[36]

ABIs rarely have enough time and resources to understand the social networks that shape how the communities function. While the Neighbourhood Renewal programme helped to drive the increased availability of small area statistics, this often took the form of tables of quantitative data displaying deficiencies against local or national averages: unemployment and crime rates are high; educational attainment and health indicators are low, and so on.

Missing from the intelligence is the extent and strength of (often informal) human relationships and exchange that form communities and that enable community regeneration in its broadest sense. Such intelligence is fundamental. A lack of understanding can lead to a deficit model of neighbourhoods, 'pathologising' communities and assuming they need top-down 'treatment' through an ABI. While such areas are objectively disadvantaged, understanding them in deficit terms alone can disempower and stigmatise, and fail to recognise and mobilise the assets that do exist.

Immediate pressure to spend money in accordance with annual budget cycles means there is limited opportunity to develop this understanding. There is also a tendency to build new infrastructure and delivery arrangements on top of or alongside the old. These hurried interventions often yield no significant change in the ways that communities function, and people retreat to relatively closed networks, where group members look to themselves rather than the wider community.

Such lessons are key if the Big Society and future attempts to address problems in deprived areas are to succeed.

2.3 CHANGING HOW COMMUNITIES CHANGE

Our reading of the available evidence on community policy is that for the last three decades governments have served to perpetuate what **Paul Watzlawick** calls 'first-order change' – changes made within a conventional frame of meaning that tend to be implemented when the overall approach to social change has not been fully thought through, is adjusted incrementally, or has not been adaquately updated.

Addressing the problems of efficient resource allocation, unlocking hidden wealth, and fostering pro-social behaviour outlined above requires a more radical 'second-order change'— a shift in the frame of meaning. Community policy needs a different concept of 'community' in order to affect the manner in which things change. Our attempt to understand communities as social networks is an attempt to generate this more fundamental model of change.[37] In attempting to shift the way society operates — in re-thinking the social contract and how we procure and produce services — the emerging notion of the Big Society can similarly be seen as an attempt to create a second-order change.

As community development consultant **Alison Gilchrist** argues, people partake in various kinds of communities for a variety of purposes, and span communities of:

- identity, to share cultural activities;

- interest, to pursue shared fates;

- purpose, to achieve common goals;

- practice, to exchange experience and learning;

- inquiry, to investigate an issue collectively;

- support, to provide mutual aid; and

- circumstance, to deal with unexpected situations.

While such areas are objectively disadvantaged, understanding them in deficit terms alone can disempower and stigmatise, and fail to recognise and mobilise the assets that do exist.

What these different forms of community share is that that they are all better understood as networks rather than geographical or interest areas, but networks which nonetheless differ fundamentally in their structure and function in ways that should inform any attempts to 'develop' them.[38]

Our appreciation for the relationship between social networks and community improvements needs deepening. As sociologist **Andy Clark** succinctly puts it, *'geographical propinquity does not mean social communality'*.[39] Geography can dictate community, particularly on housing estates where a whole range of issues are common to all who live there, and local authority boundaries and shared residential areas afford some common ties, but there are many other connections between people that may be underappreciated, at least partly because they remain invisible.

Those not willing to engage in the local safer neighbourhood forum, for example, may take part in social clubs, have children at the local school, share communal gardens and so on. Despite lack of awareness of, interest in, or cynicism towards formally organised means of addressing social problems, our research indicates that most 'disengaged' people do have social ties within their communities through a variety of channels. Such ties are important because they provide leverage points to improve people's lives, but at present they are rarely acknowledged and seldom used.

Research produced by Communities and Local Government in the last few years has increasingly recognised the importance of such relationships. For instance, a recent working paper suggested that *'Community ties, social reciprocity and civic engagement are particularly important to addressing contemporary health, skills and environmental challenges.'* Six key relationships that need to be better understood were identified:

- Horizontal relationships; between friends and neighbours, between people and public spaces (public order and civility) and relations across people of different backgrounds (community cohesion).

- Vertical relationships; between service providers and service users (co-production), participation in voluntary activity, and participation in civic and political activity.[40]

All of these relationships are best understood in network terms, but the main value of social network analysis is that it allows horizontal relationships to be measured in a way that may influence public policy.

At a roundtable discussion on deprived neighbourhoods in January 2010, participants agreed that one of the main building blocks in regeneration is recognising that deprived neighbourhoods are not all the same and therefore require tailor-made interventions. Mapping social networks is certainly part of making tailor-made, network-sensitive interventions work. For instance, there is good evidence of the impact of peer effects and social norms across a range of outcomes, and also evidence that people in deprived neighbourhoods have lower levels of trust and bridging capital.[41]

37 Watzlawick P, **Change: Principles of Problem Formation and Problem Resolution**, 1974, WW Norton & Co.

38 Gilchrist A, **The Well-Connected Community (2nd Edition)**, 2009, Polity Press.

39 Clark, A **Real Life Working Papers: Understanding Community**, May 2007 http://www.reallifemethods.ac.uk/publications/workingpapers/2007-05-rlm-clark.pdf

40 Communities and Local Government, **Social Capital and Civic Participation: A Strategic Review of Communities Policy**, 2010.

41 Communities and Local Government, 2010 op. cit

Such evidence is important because there is currently some debate over the extent to which the coalition government expects citizens to 'take over' public services, and the success of such ventures will have to be tailor-made, depending on the public service and the communities involved. A recent report from community consultants, Public Agency and Community Empowerment Strategies (PACES) argues that although communities cannot 'take over' public services, they can complement and co-produce them:

'Most of the successful examples in this field are actually sharing of both power and delivery by a public service and a community organisation. Tenant management organisations, friends of parks groups, police-resident liaison groups and many others perform this cooperative function.'[42]

How to find the right people for these cooperative functions, so that they can become sustainable models of community engagement, rather than exceptions to the rule that depend on the efforts of select individuals, remains unclear. A social network approach to community regeneration could also play a role in making more efficient use of scarce financial resources, because network analysis can, in principle, tell us which community hubs or members are best placed to have an overview of existing community skills and needs, coordinate activity and spread useful information and opportunity. We might assume that such people are elected representatives, but in New Cross Gate, for example, we found that more people know and gain value from their postman than their local councillor.

Social capital and social networks have become explicit policy and delivery aspirations in recent years. For example, the Department of Health's vision, expressed in its 'Putting People First' policy paper, has been to transform adult social care and recognises social capital as a key ingredient in enabling people to live their lives as they wish, with independence, well-being and dignity.[43] Meanwhile, the national drug strategy is recognising the importance of social capital in helping users seek and sustain recovery. The RSA's work with drug users in West Sussex and in Peterborough is piloting ways in which 'recovery capital', in its personal, social and community forms, can be better understood, grown and mobilised to help drug users maximise health and wellbeing and participation in the rights, roles and responsibilities of society.

Existing examples of related policy research include the 'Social Assets Research Report' by the Community Foundation of Northern Ireland, in which 890 super output areas were given estimated scores for their levels of social assets, based on measures of bonding, bridging and linking social capital and community capacity and capability.[44] The report finds that identifying areas in need in terms of multiple indices of deprivation should be complemented by a richer understanding of social assets, and that this understanding can lead to 'greater sensitivity in funding allocations', which is consistent with our claim that social network analysis can give a more meaningful understanding of efficiency. It also reports that trust is a key prerequisite for any successful community regeneration work.

A social network approach to community regeneration could also play a role in making more efficient use of scarce financial resources, because network analysis can, in principle, tell us which community hubs or members are best placed to have an overview of existing community skills and needs, coordinate activity and spread useful information and opportunity.

The NESTA-funded 'Young Foundation Report on Social Innovation' uses a form of web-based organisational network analysis to compare networks and levels of networking connected to innovation, based on identifying 'hubs', 'gatekeepers' and 'pulsetakers', and seeks to discover the optimal levels of network density for fostering innovation.[45] Their report highlights that the local authority, along with schools and colleges appear to dominate the innovation process and that the potential for social network analysis to inform the strengthening of communication networks remains largely untapped.

A recent IPPR report examines how Polish immigrants use social networks to find employment, and suggests that while this makes them more likely to find work in the short term, it can lead to social stratification in the long term, because opportunities are restricted to the range of the social network, which may cut them off from barriers to integration, including language and knowledge of the wider labour market.[46]

These three sets of recent findings relating to social assets with respect to resource allocation, innovation, and immigration respectively, provide some corroboration for our contention that communities need to be understood as networks, and also that a deeper account of social connectivity is required.

Summary

Decades of community policy and practice have indicated that viewing communities solely as geographical entities has limitations.
In recent years there has been a growing emphasis on social assets, and an emerging understanding in the policy world that a deep grasp of social assets is only possible by uncovering the nature of community connectivity.

42 Chanan G, and Miller C, **The Big Society: How it Could Work: A Positive Idea at Risk from Caricature**, Spring 2010, PACES, http://www.pacesempowerment.co.uk/pacesempowerment/Publications.html

43 **Putting People First: A Shared Vision and Commitment to the Transformation of Adult Social Care**, 2007, HM Government, London.

44 Morrissey M, Healy K, McDonnell B, **Social Assets Research Report: A New Approach to Understanding and Working with Communities**, 2008, The Community Foundation for Northern Ireland and Community Evaluation Northern Ireland.

45 Bacon N, Faizullah N, Mulgan G, Woodcraft S, **Transformers: How Local Areas Innovate to address changing social needs**, 2008, NESTA.

46 Sumption M, **Social Networks and Polish Immigration to the UK**, 2009, Institute for Public Policy Research.

SECTION 3: RESEARCH METHODS: UNCOVERING SOCIAL NETWORKS

The RSA has attempted to measure social networks, and has chosen to do so in an area that is coming to the end of an ABI (New Cross Gate, southeast London); and in an area that is geographically isolated, with few public goods save for an innovative community centre, and that according to national statistics is multiply-deprived (Knowle West, Bristol).

We recognise that these areas are not universally representative, but suggest that they house tensions, problems, and hidden assets common to many communities and in this way our work is illustrative of approaches that may be replicated in other areas.

We describe below the methodological framework that has guided us, and outline the properties of networks that have shaped our choice of methods. We then offer a brief overview of our research sites, before describing our research tools and processes in detail. The section ends with a discussion of the limitations of our approach.

3.1 METHODOLOGICAL RELATIONISM

Taking social networks seriously means recognising that the elementary unit of social life is neither the individual nor the group. Social networks allow us to move beyond this classic theoretical distinction. This is because they presuppose a social structure that both shapes and is shaped by individual behaviour. As Christakis and Fowler indicate: *'The science of social networks provides a distinct way of seeing the world because it is about individuals and groups, and about how the former actually become the latter.'*[47]

This thinking underlies the RSA's perspective on research more generally. Methodological individualism provides social explanations based on aggregating the significance of individual actions and forms the basis of most economic theory, while methodological holism explains individual actions on the basis of the social structures in which individuals are embedded and through which they are defined.[48] Modern sociologists such as **Anthony Giddens** recognise that structure and agency are interrelated and have a recursive character.[49] Rather than explain social phenomena through the relationships of structure and agency, it is possible to make social relationships themselves the principal units of analysis. This is the basis for methodological relationism. In this framework, psychology and social networks work together and both need to be incorporated to understand individual behaviour and social phenomena. Methodological relationism is relatively rare in western social science, but is more common in Asian social psychology, in which the unit of analysis is characterised as follows:

'…Not the individual or the situation alone, but person-in-relations (focussing on a person in different relational contexts) and person in relation (focussing on persons interacting within a relational context)… It acknowledges that the social 'presence' of others is always entered into social calculations…The process is bidirectional…it recognises the individual's embeddedness in the social network.'[50]

Presently, our Connected Communities project focuses more closely on social networks than on individual psychology. As we progress this year and next we will seek to integrate our work with the RSA Social Brain project, and begin to show the power of research grounded in methodological relationism, which, as Robins and Kashima state: *'...directs researchers to theorise about an individual's action while including the workings of the individual's egocentric local network in its analytical scope.'*[51]

3.2 CONNECTIVITY, CONTAGION AND REFLEXIVITY

The theoretical basis for social networks is well established,[52] and social network analysis has now become a burgeoning academic field across disciplines, in part facilitated by data trails made possible by new technology. For instance, a recent large-scale study reported in Science combined the most complete record of England's national communication network with national census data on the socio-economic well-being of communities, and concluded that the diversity of individuals' relationships is strongly correlated with the economic development of communities. Such a powerful finding was only possible by using data from more than 90% of the mobile phones in England. [53]

The network perspective offers a distinctive explanatory tool because it reveals patterns of relationship and exclusion that would otherwise remain invisible. Patterns of connectivity can serve as a diagnostic, revealing opportunities to connect those who are disconnected, and 'spreading' constructive social norms through highly connected individuals whose behaviour is likely to be imitated by those in their network.[54]

The possibility of representing social networks visually also affords a kind of mirror in which individuals can identify themselves and their patterns of social interaction. These 'sociograms' serve not only to improve objective understanding of how communities function, but also provide a tool to change the subjective perception of individuals as community members. This generates reflexivity that we believe may in itself lead to more pro-social behaviour, better awareness of the conditions in which their actions are taken, and result in a greater ability to shape them. In this sense, viewing communities as social networks is beneficial in terms of both process and outcome. Using methods that contribute to creating change alongside interventions that are designed on the back of the intelligence they generate is part of the RSA's wider emerging research identity.

Before we discuss the specific methods we have used in our research sites in detail, we offer a thumbnail portrait of each area to assist the reader in understanding the context within which our research has been undertaken and in which our plans are unfolding.

47 Christakis N and Fowler J, **Connected: The Amazing Power of Social Networks and How they Shape Our Lives**, 2009, p32, Harper Collins, italics added.

48 These methodological positions stem from the philosophy of social science rather than political theory, and should not be confused with, for instance, individualism or communitarianism. The issue at stake is not ontological (what there is) or ideological (what is most important), but methodological, i.e. which units of analysis lend themselves to the richest explanations of social phenomena.

49 Giddens A, **The Constitution of Society: Outline of the Theory of Structuration**, 1984, Polity Press.

50 Ho D, Interpersonal Relationships and Relationship Dominance: An Analysis Based on Methodological Relationalism, 1998, p1, **Asian Journal of Social Psychology.**

51 Robins G and Kashima Y, Social Psychology and Social Networks: Individuals and Social Systems, 2008, p11, **Asian Journal of Social Psychology.**

52 For an excellent overview, see Marin and Wellman, Social Network Analysis: an Introduction, in **Handbook of Social Network Analysis**, Carrington P and Scott J (eds) forthcoming 2010, Sage.

53 Eagle N, Macy M, Claxton R, Network Diversity and Economic Development, 21 May 2010, **Science**

54 Christakis N and Fowler J, Jan 25 2010, op cit.

NEW CROSS GATE

New Cross Gate is located in the north of the London Borough of Lewisham. It neighbours Peckham to the west (so borders the London Borough of Southwark), the affluent Telegraph Hill to the south and the section of the Old Kent Road around Millwall Football Club to the north. Deptford, Lewisham College and Goldsmiths University are found to the east. It hosts significant transport interchanges, including New Cross Gate rail and Tube station and bus garage, and has the A2, one of the major roads out of London to the southeast, running through it. It is made up of five super output areas (SOAs) (see figure two for topography) and has a resident population of around 9,000 people.

The Somerville SOA has mainly social housing and holds key community resources such as an adventure playground, community centre and primary school. Winslade SOA is a relatively isolated and self-contained area geographically with mainly social housing, including sheltered housing. It is hemmed in by a railway line to the east and by an industrial area. Kender Triangle SOA contains another primary school and relatively newly developed social housing. It is something of an island within New Cross Gate, surrounded by the A2 and a gyratory system. Hatcham SOA contains a designated conservation area (originally owned by the Worshipful Company of Haberdashers) with a mix of social housing and owner occupied/privately rented accommodation acquired under the right to buy. Monson SOA contains a third primary school (now a feeder school to nearby Haberdashers' Aske's).

Overall, over half of New Cross Gate residents live in social rented accommodation (compared to 19% nationally) and 29% are owner occupiers (compared to 69% nationally). The area is ethnically diverse: 48% are of White ethnic origin (compared to 91% nationally); 13% are Black/Black British Caribbean; and 20% are Black/Black British African.

The area has been in receipt of New Deal for Communities (NDC) funding since 2001, with the programme due to close in March 2011. The New Cross Gate Trust is the successor vehicle for the NDC and has a locally elected/appointed board to help drive the continuing regeneration of the area beyond the NDC programme.

The NDC programme ran many of projects aimed at addressing crime and community safety; unemployment educational and skills attainment; health and community infrastructure and cohesion. The area scored poorly on the 2001 indices of multiple deprivation (IMD) and despite improvements in educational attainment and community infrastructure in particular, high levels of unemployment remain. Despite such problems, it is, according to the chief executive of the Trust, a cohesive area in which people from different backgrounds get on well with each other.

KNOWLE WEST

Knowle West comprises five super output areas within Filwood ward in South Bristol. Although only two to three miles from the main centres of Bristol, Broadmead and Bedminster, Knowle West is 'geographically like an island'.[55] In social capital terms, Knowle West can be considered a highly bonded community, with approximately 95% of residents white working class who feel a strong identification with Knowle West, and several generations staying in the same area, often with the implicit assumption that 'those who grew up on the estate, stayed on the estate'.[56] Locally, Knowle West residents are known as 'Westers', and there appears to be a disparity between the internal and external perceptions of the area, captured by the fact that being 'a Wester' can be both a badge of honour and a judgemental label.[57] Distinctive features of Knowle West include the prevalence of green spaces, a high number of people who keep horses and go riding, relatively high church attendance, and lately a large social enterprise project, Knowle West Media Centre.

According to its own website, *'the Knowle West Media Centre (KWMC) works with the community to develop the creative, educational and social potential of people within the surrounding area. We produce high-quality film, design and media work, provide exciting experiences for young people and run a diverse programme of arts activities, including exhibitions, events, talks and screenings. We also provide access to project facilities, training and mentoring, as well as managed workspace for local businesses.'*[58]

3.3 METHODS

'Social network' makes people think of Facebook and similar forms of social media, but we believe there is still much to learn about offline, face-to-face connections, and these are the focus of this report. The New Cross Gate NDC programme employed mainly offline methods; whereas the Knowle West Media Centre employs digital methods to a large extent. We have therefore concentrated on our findings from New Cross Gate and offer a fuller account of our methods in this location. While we draw on our findings and analysis from Knowle West in this report to some extent, a forthcoming RSA paper on the links between access to digital information and communication and social capital provides more detail.[59]

Given the complex nature of social networks, we employed a mixed methods approach to mapping and understanding social connections. Social network analysis on the scale we have undertaken yields a vast amount of complex data. This report contains samples of our analysis to illustrate key themes which have emerged and our discussion of the theory. Rather than provide masses of data throughout, we will produce in-depth briefings following this report that interrogate each of our main themes in detail.

Method in New Cross Gate

In New Cross Gate we devised a questionnaire with which to survey local residents. This was based on our reading of the literature on social capital, social networks and of measurement techniques for both social capital and networks. Our questions were designed to understand the different ways people were empowered and made more resilient through their local connections. Broadly speaking, the questions were designed to elicit connections to people respondents knew well (strong ties), and to those they may not have known so well (weak ties), and to understand where there are no connections (by omission, no ties). We discuss the nature and relative importance of these ties in section 4.1 (Law 7: Weak Ties Get You Working) of this report. For example, respondents were asked questions such as: 'who are the people that you seek out for advice or to discuss matters important to you?'; and 'who are the people you know who seem to be good at bringing other people together?' A copy of our questionnaire is given in the Appendix.

These questions worked on a 'name generator' basis.[60] For all questions, respondents were asked to give up to six names in response to each question. In addition, respondents were asked to give a numerical score to indicate how valuable each relationship was to them, and to say whether the people they named lived in their local area. Local was self-defined rather than defined, for example, by administrative boundaries, in order to reflect respondents' networks and not limit them to imposed or arbitrary geographies. Care was taken to consider question order effects and their potential impact on the validity and reliability of the data.[61]

55 As described by Director of Knowle West Media Centre, Caolyn Hassan.

56 Suzanne Lacy, Artist-in-Residence and leader of University of Local Knowledge Project.

57 Ibid

58 http://www.kwmc.org.uk/

59 Davies W, **The Social Value of Digital Networks in Deprived Communities**, William Davies, RSA (forthcoming).

60 For example, see Lin N, Building a Network Theory of Social Capital. p3-30 in Ronald Burt(ed) **Social Capital: Theory and Research**, 2001, Aldine de Gruyter.

61 Pustejovsky J and Spillane J, Question-order Effects in Social Network Name Generators, October 2009 **Social Networks**, Volume 31, Issue 4.

Respondents were then asked a series of 'resource generator' questions designed to understand the availability of social resources to respondents. These included, for example, understanding whether respondents knew people who worked at the local council, who could use the internet, or could sometimes hire people. Resource generators are difficult to construct as question selection is based on theory and evidence concerning the relative usefulness of particular social assets to respondents in particular environments. Here, we have employed our overarching framework of empowerment and resilience, informed by academic studies, to create our question selection.[62]

Finally, respondents were asked a series of questions about themselves, including age, gender, ethnicity, economic status, household status and length of residency in the area. This enabled us to compare networks and access to social resources for different socio-economic groups and also to compare the profile of our sample against the known profile of the New Cross Gate population.

Our survey was piloted in 2009, and our final survey was undertaken in late 2009 and early 2010. The survey was conducted by a team comprised of RSA staff, postgraduate students from LSE and Goldsmiths University, which is located on the periphery of the New Cross Gate area, and local residents from New Cross Gate. In training and briefing researchers, we attempted to build links (emerging bridging capital between local residents, local students and the RSA) that would carry through to further stages of our work in New Cross Gate to co-design and test social network based approaches to addressing local problems. All research participants were briefed and given debriefing information.

Our survey was administered primarily in the super output areas that make up New Cross Gate as defined by the NDC programme that has been running in the area and that is a partner in our work, but also in the surrounding neighbourhoods into which social networks of NDC residents extend. Interviews were conducted mainly door to door, with additional intercept interviews in public spaces.

Each set of responses represents a rich 'ego-centric' network of connections through which each respondent's empowerment and resilience can be understood. These individual networks were then pieced together to build an indicative collective, or 'global', network. Some 280 individuals were interviewed, which generated a total of over 1,400 local people, institutions and places. In addition, the disposition of being neighbourly, or valuing neighbourliness, is included in the 1,400 nodes on our network map.

This mixed-node approach allowed us to explore the relative connectedness and centrality of private, public and social assets and to understand how they themselves are networked. The data from the pilot and main survey was integrated and cleaned, with names being cross-referenced across the dataset to ensure consistent and accurate identification of all nodes that were named by multiple respondents. Networks were constructed and analysed using UCINET and NetDraw software.

This mixed-node approach allowed us to explore the relative connectedness and centrality of private, public and social assets and to understand how they themselves are networked

In addition to our network analysis, in-depth interviews were conducted with 'key hubs', as identified by community workers and residents and by our aggregated social network map.[63] By key hubs, we mean those in the network who are highly connected and who act as bridges between different parts of the network. The interviews were undertaken by RSA staff and Fellows and served to help understand how they had arrived at these network positions, and their roles, behaviours and connections in more detail. Interviews were analysed thematically.

Finally, we explored the social networks of local residents who had engaged with and been supported by the Kinship Project, a local initiative funded by New Cross Gate NDC and the Child and Adolescent Mental Health Services (CAMHS) team at the South London and Maudsley NHS Foundation Trust. The project works with children, young people and parents, directly supporting those who are socially excluded and/or suffer from low mental wellbeing. It does so by building networked capacity in the local community to recognise and support mental health recovery, and building networks to better integrate those working with the project into community life and support. We explored changes in networks over time of three families supported by the project, on a case study basis. In addition, we interviewed project staff and those in the community who had been supported by the project in developing skills and knowledge. We also analysed before and after measures of various capabilities, and explored how networks had supported their acquisition and enabled and sustained their use. This report touches on the findings from the case studies where relevant. A full account of this research will be given in a forthcoming RSA paper to launch a new programme of work to explore and use social networks to address social inclusion and mental wellbeing in various research sites across the country.[64]

Method in Knowle West

Our approach in Knowle West was more qualitative. Here, we expanded our exploration of networks that empower and support to include to digital (online) networks and their relationships with social (real world) networks, and the extent to which they are mutually reinforcing. Our approach was shaped in part by the resources available for our work, which were more limited than in New Cross Gate.

We worked with the Knowle West Media Centre (KWMC) which is a key hub in the community and uses digital means to foster awareness of and engagement with social issues in the area. Our approach was two-fold. Firstly, we undertook in-depth interviews with key stakeholders in the KWMC and local residents who were identified by KWMC staff and local residents as being individual 'hubs' in the community. These interviews focused on local strategic approaches to network building; how networks are constructed and cascade information across the various platforms, relationships and channels that make up the local media ecology; and how social and digital networks and communications interact. We were interested in understanding local stories as case studies of chains of events that would illustrate networks, communication and interaction. Ten in-depth interviews were undertaken by RSA staff using a semi-structured interview guide and were analysed thematically.

62 Van Der Gaag M and Snijders T, **The Resource Generator: Social capital quantification with concrete items**, 2004, http://www.xs4all.nl/~gaag/work/RG_paper.pdf

63 Our key hubs were an NDC Programme Manager, a Community Representative from the New Cross Gate Trust, Green Shoots project manager, Credit Union manager, 170 Community Project director, 170 Works manager, Barnes Wallis Centre manager, Hatfield Training Centre manager, Building Healthier Communities manager, and Kender Tenants & Residents Association (TRA), Somerville TRA, Winslade TRA representatives.

64 In partnership with UCLAN and LSE, the RSA will be launching a longitudinal study on a social networks approach to social inclusion and mental wellbeing later in 2010. The work is supported by the Big Lottery Research programme and will operate in multiple sites across England.

Secondly, a survey was undertaken of 100 users of the KWMC in early 2010. This was self-administered and collected at the KWMC reception. The survey sought to understand the role of social and digital networks in how and why residents had engaged with this hub, and how information, action and opportunity had spread through networks. Demographic information on respondents was also collected and survey data was analysed using Statistical Package for the Social Sciences (SPSS) software.

3.4 RESEARCH CONSIDERATIONS

We are trying to develop methods that are as researcher- and respondent-friendly as possible, so that the process of measuring networks becomes also one of building social capital. We have sought to employ robust research methods and rigorous analysis, but there are several challenges in undertaking research on community-based networks, which we acknowledge.

Social network analysis is a growing field, but attempts to measure social networks at a community level are relatively nascent, mainly due to the methodological challenges involved in studying communities as networks.[65] In his analysis of community networks, Clark highlights a 'wariness about the pragmatism behind some decisions about how to capture social networks in the research.'[66] The main caveat in using social network analysis at a community level is that the research tool which yields information about social networks is designed to give results about individual networks from bounded populations, allowing researchers to measure the relative strength and transitivity of connections rather than merely record their existence and indicators of their strength. Such a tool is ideal for the analysis of organisations, but problematic at a community level.[67]

While neighbourhoods can be demarcated at a geographic level, measuring all networks that impact on a community would incorporate a potentially huge number of people. As we discuss later in this report, as a rule of thumb, influence extends through networks with up to three degrees of separation; in other words, an individual's friends' friends' friends have a discernible impact upon them. However, the person at this final level of remove is influenced through their social networks in the same way, and so on. Such chains of influence mean that if we are interested in identifying social assets and influences available to a community through its social networks, we may need to survey a huge and unknown number of people to understand, for example, the social network reach of an area the size of New Cross Gate. In addition, current research methods for mapping offline social networks are labour-intensive and require respondents to describe their personal relationships, which can lead to high levels of refusal if the purpose of the study is not sufficiently clear and aligned in some way to participant interests.

In aggregating the ego-centric networks we collected, we present our research findings as indicative of the patterns of relationships that exist, and use this as an evidence base upon which to proceed. We do not claim that our social network maps represent an exhaustive set of all possible connections between all possible nodes.

65 Canadian Sociologist Barry Wellman was a pioneer in the field. See Wellman B, The Community Question: The Intimate Networks of East Yorkers,1979, **American Journal of Sociology**, Vol 84, p5.

66 Clark A, 2004 op. cit. **Real Life Working Papers: Understanding Community**, May 2007 http://www.reallifemethods.ac.uk/publications/workingpapers/2007-05-rlm-clark.pdf

67 For example, organisational anthropologist Karen Stephenson uses Social Network Analysis to show the relationship between organisation hierarchies and heterarchies, and the Work Foundation produced a report in 2003: **Mapping Social Networks in Organisations**, by Kelly Drewery and William Davies.

As with much research that engages cold contacts in lengthy surveys, respondents experienced an element of survey fatigue during the interview. Our experience of piloting the survey led us to cut down the number of questions asked, and to phase the questions so that all name generator questions came first, followed by resource generator questions, as the latter were deemed to be less important. Analysis of the data reveals that only three quarters of respondents answered all resource generator questions and so we have not included resource scores in the analysis of the network.

Summary

- Our research project has been designed as a response to community interventions that fail to understand or take account of social networks.

- We have undertaken research into networks in New Cross Gate, a multiply-deprived neighbourhood in southeast London that is coming to the end of a New Deal for Communities programme; and Knowle West, an isolated, deprived residential area several miles outside of the centre of Bristol. Such areas house tensions, problems and hidden assets common to many communities.

- Our approach is guided by methodological relationism; relationships are the principle unit of analysis.

- Social network analysis allows us to focus on patterns of relationships and exclusions. It enables us to make visible connections and influence in a network, and to reflect on our own position and role in a community network.

- We undertook door-to-door surveys in New Cross Gate to understand local social networks, together with in-depth interviews of key hubs in the network. We constructed a network map of some 1,400 nodes (local people and institutions) as an indicative blueprint for how the community works. In Knowle West, we interviewed local key connectors and influencers and surveyed users of the Knowle West Media Centre.

- Undertaking social network analysis in communities – large, unbounded populations – is methodologically and practically challenging, and yields large amounts of rich, complex data. However, through this project, we are learning how social network research is best done in neighbourhoods.

SECTION 4: SOCIAL NETWORKS: STRUCTURE, FUNCTION AND PROCESS

This chapter outlines the theory of social network structure and function, and examines each aspect of this theory in light of the emerging data from our fieldwork in New Cross Gate and Knowle West. It also discusses the potential benefit of social network analysis and reflection as a process which itself strengthens networks.

The strange yet familiar world of social networks

Physicist and Philosopher **Niels Bohr** said that if you were not shocked by quantum theory then you didn't really understand it. This point may be at least partly true for the role of social networks in our lives. We have evolved as social beings, so at a deep level we may be more or less intuitively adept at managing our social connectivity in ways that enrich our lives. But we struggle to comprehend our profound social interdependence and to accept its diffuse influence on our behaviour. We are more ready to place ourselves at the centre, to see ourselves as the authors of our own life-stories, rather than accept the degree to which they may be scripted by people we will never know.

The limitations of our ego-centric psychology and the growing evidence of the power of network effects underpin our argument that applying a networked approach to community problems could strengthen area-based initiatives. It also informs our hypothesis that increasing self-awareness about social networks has a transformative potential at both an individual and community level. This logic of reflexive social awareness also underpins the approach and application of the RSA's Social Brain project.[70]

Visualising social connectivity through social network maps could be particularly powerful. As a species we have evolved with an advanced ability to identify patterns in visual data and visual representations are helpful in making sense of abstract, complex phenomena. Likewise it is hard to grasp the meaning of emergent phenomena without recourse to structure. But at the same time we must also guard against the instinct to infer and impose structure where there may be none, or assume a predictable causal sequence where the pattern is only discernible in retrospect.

So which, if any, patterns can we discern in social networks? How are their effects felt in real-life communities? And how can we make strange phenomena more intelligible to our order-seeking minds? This chapter attempts to answer these questions in parallel. We examine each aspect of the structure (connectivity), function (contagion) and process (reflexivity) of social networks both in theory and in the lived reality of the specific community, New Cross Gate, where we have undertaken primary research.

The data from our fieldwork is only partial and indicative at this stage, and this report only a first step in the process of uncovering the insights from social network analysis in a non-institutional setting. We will be undertaking and publishing deeper analysis over the coming months.

I am bound to everyone on this planet by a trail of six people.
— **John Guare, Six Degrees of Separation** [68]

It transpires that your colleague's husband's sister can make you fat, even if you don't know her.
— **Nicholas Christakis** [69]

4.1 SOCIAL NETWORK STRUCTURE: LAWS OF CONNECTIVITY

How do social networks operate? What is their underlying structure? Each section below describes a particular facet of social networks as revealed by the emerging research literature. We seek to take this analysis further by assessing each of these attributes in turn for their congruence with some early findings from our New Cross Gate study or for their relevance to community regeneration in general. This connection between theory and practice helps us evaluate how a networked approach can provide new insights into the problems and opportunities for local communities.

We describe each of the structural attributes of social networks as a 'law' of connectivity to aid understanding. However, given the emergent nature of network phenomena, a more accurate description would be that of a pattern.

Law 1: Six Degrees of Separation, Three Degrees of Influence

In theory

Stanley Milgram's 1960's letter-forwarding experiment[71] in which he suggested that everybody in the world is connected up to six degrees of separation was considered by many to be unreliable research, but this remarkable finding was reinforced by a 2002 study using email data of 48,000 people.[72]

It is important to recognise that connection does not mean influence. We may be connected to each other through six degrees, but Christakis and Fowler's research indicates our influence only extends to three degrees:

'Everything we do or say tends to ripple through our network, having an impact on our friends (one degree), our friend's friends (two degrees) and our friend's friend's friends (three degrees). Our influence gradually dissipates and ceases to have a noticeable effect on people beyond the social frontier that lies at three degrees of separation. Likewise we are influenced by friends within three degrees but generally not by those beyond.'[73]

In addition to our six degrees of separation and three degrees of influence, anthropologist **Robin Dunbar** argues that we have the social and cognitive capacity to have up to 150 friends, the so-called Dunbar number.[74]

Taken together, these three points suggest a high degree of interdependence. Hypothetically, a person with 150 friends who has three degrees of influence could influence and be influenced by up to 150^3 (i.e. well over three million) people. In reality, there would be considerable overlap between the friends, and influence decreases with each degree of separation, but the point serves to illustrate how thinking in network terms expands our idea of where our influence begins and ends.

68 Guare J, **Six Degrees of Separation**, 1990.

69 http://www.thersa.org/events/audio-and-past-events/2010/connected-the-amazing-power-of-social-networks-and-how-they-shape-our-lives

70 http://www.thersa.org/projects/social-brain

71 Milgram S, The Small World Problem, **Psychology Today**, 1967, Vol. 2, p60-67. Some have suggested that Hungarian writer Frigyes Karinthy was the original proponent of 'six degrees'. He outlined the idea in a short story called 'Chains' published in a collection titled **Everything is Different** in 1929.

72 Watts D, Dodds P and Newman M, Identity and Search in Social Networks, **Science**, 2002, Vol. 296; Dodds P, Muhamad R, Watts D, An Experimental Study of Search in Global Social Networks, **Science**, 2003, Vol. 301

73 Christakis N and Fowler J, 2009, op.cit. The authors offer three possible explanations for the existence of the three-degree rule, all of which they feel may be relevant. 1) Intrinsic decay: a decay in the fidelity of information once it is transmitted. 2) Network instability: for a person more than three degrees removed, the chance of one of the three degrees of connection being severed is quite high. 3) Evolutionary purpose: we are built for small group behaviour, and have not evolved to be connected to people four degrees removed from us. Speaking at the RSA, Christakis also clarified that the three degree rule should be understood as 'a rule of thumb rather than a social fact.'

74 http://www.thersa.org/events/vision/vision-videos/robin-dunbar-how-many-friends-does-one-person-need

The three degrees of influence rule is one of the main network heuristics to emerge from a series of influential papers on a range of topics including obesity, happiness and smoking, in which Christakis and Fowler highlight the extraordinary power of social networks to influence behaviour, spread values and shape attitudes.[75] Their hugely influential body of research arose from the fortuitous discovery of detailed time series public health data in Framingham, USA, which contained information on a core group of over 5,000 people with information on friends, relatives, neighbours and co-workers, within a larger network of over 12,000 people, going back 30 years and leading to a map of over 50,000 social ties.

In the community

Capturing relational data of this kind, and understanding the power of influence, helps us identify the opportunities and limitations for development in a place like New Cross Gate. Our data there indicates that there is generally about two percent of people who do not know anyone with regards to any aspect of empowerment and resilience covered by our questionnaire **(see Appendix)**, let alone on questions that explored people's networks through which they can influence local decisions. Mapping the disenfranchised in this way could ultimately help increase social inclusion via better targeted communications and policy interventions.

In addition to having their influence weakened through lack of informal social connections, many people are cut off from direct access to formal sources of influence. For instance, two thirds of people in New Cross Gate do not know anyone who works at the local council, and a third do not know anyone who is in a position to employ people even on a temporary basis. Influencing the media is also a remote possibility for many, with 40% of people not knowing anyone who knows someone at a local newspaper, website, TV or radio station.

There are some important differences in this regard between demographic groups. Our analysis in New Cross so far indicates that young people (16-24 year-olds) have below average access to social resources, and that connectivity increases with age until the 65+ group, where we see a dramatic drop-off in connectivity. Those over the retirement age in most cases have the fewest social resources to draw upon.

In terms of household type, single parent families have fewer social resource connections than average. This finding is consistent with previous research that shows fewer parental connections impacts on the future economic prosperity of children from single parent families.[76] Although the numbers in our analysis are small, it seems half of single parent households do not know people who hire someone from time to time (an indicator used to understand the usefulness of peoples' connections), compared to a third of residents overall.

75 Christakis N and Fowler J, The Spread of Obesity in a Large Social Network Over 32 Y ears, 26 July 2007, **New England Journal of Medicine,** Vol 357, p370–379; Christakis N and Fowler J, The Collective Dynamics of Smoking in a Large Social Network, 22 May 2008, **Ibid,** Vol 358, p2249–2258; Fowler J and Christakis N. 'Dynamic Spread of Happiness in a Large Social Network: Longitudinal Analysis Over 20 Years in the Framingham Heart Study', **Ibid**, 2007, Vol 357, p 370-9, 3 January 2009.

76 Giddens A, **The Third Way: The Renewal of Social Democracy**, 1998, Polity Press.

77 Krebs and Holley, **Building Sustainable Communities through Network Building**, 2002 http://www.supportingadvancement.com/web_sightings/community_building/community_building.pdf

78 Halpern D, 2005 op. cit.

79 Aldridge S and Halpern D, **Social Capital: A discussion paper**, 2002 http://www.cabinetoffice.gov.uk/media/cabinetoffice/strategy/assets/socialcapital.pdf

80 Taylor M, Neighbourhood Management and Social Capital, 2007, Communities and Local Government Research Report 35.

81 Giddens A, 1998, op cit.

82 http://www.cabinetoffice.gov.uk/newsroom/news_releases/2010/100722-citizenservice/national-citizen-service.aspx

83 Butler T, 'In the city but not of the city? Telegraph H llers and the making of a middle class community', 2008, **International Journal of Social Research Methodology**, Vol 11(2).

...we tend to create a network in our image, associating with people like ourselves in an act of what the network theorists call homophily.

Law 2: Birds of a Feather Flock Together

In theory

Evidence suggests that we shape our own networks, deciding both intuitively and consciously how many people we connect to, how dense and well-maintained these connections are and how central we are in the networks we create. As such we tend to create a network in our image, associating with people like ourselves in an act of what the network theorists call homophily.

This phenomenon is described in some common figures of speech. Community consultants Krebs and Holley argue that when networks are left unmanaged by residents, community developers and the public sector, *'birds of a feather flock together'* and that *'those close by, form a tie'*. This can be problematic because it leads to small bonded clusters lacking in diversity and access to information, ties and resources outside.[77]

One as yet unanswered question in the existing literature is how best to understand the relationship between bonding and bridging capital. Halpern, for instance, has suggested that community health depends upon having both, and there is some evidence that highly bonded immigrant communities are actually better at integration and forming bridging connections with other communities.[78] A more general observation is that excluded groups tend to have high levels of bonding social capital relative to bridging social capital, which is why year two of our project will make building bridging capital a priority.[79]

Such an approach might mean 'reconnecting the rich' as **Marilyn Taylor** argues[80], which means not working only within neighbourhoods, but also connecting the affluent with the less affluent and vice versa, both to combat stereotypes and expand access to opportunities. **Anthony Giddens** writes about the elective separation of the better off, for instance through gated communities, and warns that such an attempt would not be easy.[81] In announcing plans for the National Citizen Service, the coalition government explicitly aims to mix participants from different backgrounds to create diverse but cohesive groups, which alongside delivering social action projects could foster valuable bridging capital.[82]

In the community

Our research reinforces Giddens' latter point. Part of our fieldwork interviews were also conducted within the more affluent Telegraph Hill which adjoins New Cross Gate. The data highlights the practical challenges of building bridging capital in this way, echoing the findings of a previous Telegraph Hill study conducted by Butler in 2008:

'I don't really think there is a chance to get people from Telegraph Hill to help. There's no real desire to bring any of those skills down from the Hill to work here, unless they're handsomely paid for it. There's not a lot of give for nothing, outside of their community.'[83]

Some of the challenge lies in creating everyday opportunities for interaction, which is part geographical and part habitual: *'You could draw a huge black line between Telegraph Hill and New Cross Gate. Not many from Telegraph Hill pass down this way.'*
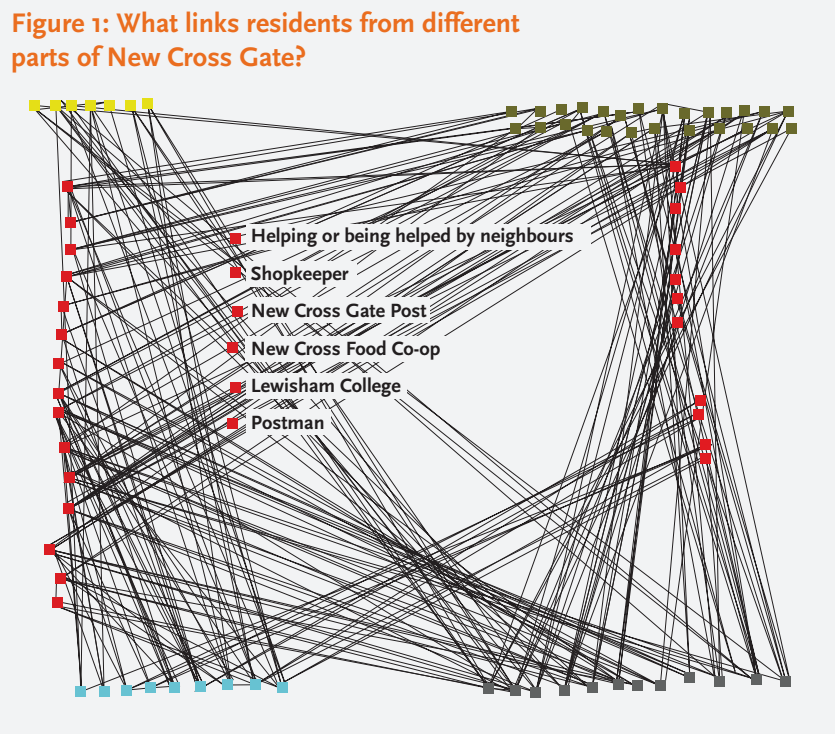
That said, several people living in Telegraph Hill who were involved in the study clearly recognised the importance of constructive networks between the areas. This perceived separation was in part attributed by a resident to the way the boundaries are drawn for the NDC area, focusing exclusively on a lower-income part of the London Borough of Lewisham. Administrative boundaries of wards and super output areas do not mesh with people's networks, and serve to confine area-based initiatives in ways that segregate areas and produce strong internal identities and bonded capital rather than forging links to other areas that can foster empowerment and raise aspirations.

Figure 1: What links residents from different parts of New Cross Gate?

Helping or being helped by neighbours
Shopkeeper
New Cross Gate Post
New Cross Food Co-op
Lewisham College
Postman

In social capital terms, Knowle West is considered a highly bonded community. From neighbourhood statistics we know that 95% are White British, almost a fifth of 16-74 year olds are in what the Office for National Statistics terms routine occupations, (compared to 9% nationally), and 6% have never worked (3% nationally).[84] These statistics indicate less opportunity for contact across demographic groups and less influence from 'outsiders'.

Until a few years ago there was, as one respondent put it, an implicit assumption that *'those who grew up on the estate, stayed on the estate'*[85], which is still true, but to a lesser extent. Locally Knowle West residents are known as 'Westers', and there appears to be a disparity between the internal and external perceptions of the area, encapsulated by the fact that being a Wester can be both a badge of honour and a judgemental label.

In contrast, New Cross Gate has greater ethnic diversity and is relatively integrated. From our network maps, we observe only minor clustering among people of different ethnicities, which may be the result of families and particular culturally specific or faith-based activities. This matches the NDC's view that the area is well integrated. For example, there were very low levels of racially-motivated hate crime in the recorded crime data for the NDC.[86]

In terms of making use of hidden wealth and encouraging behaviour change, Knowle West's homophily (when connections between similar people are more common than among dissimilar people) poses an interesting challenge, but also an opportunity. By combining social network analysis with demographic data, we can begin to see patterns of homophily. But within these clusters, we can also identify bridges to other clusters, and then attempt to use those bridges to connect whole networks.

84 http://www.neighbourhood.statistics.gov.uk/dissemination

85 Suzanne Lacy, Artist-in-Residence and leader of the University of Local Knowledge Project.

86 **NDC Administrative Datasets**, 2008, Social Disadvantage Research Centre, Oxford University.
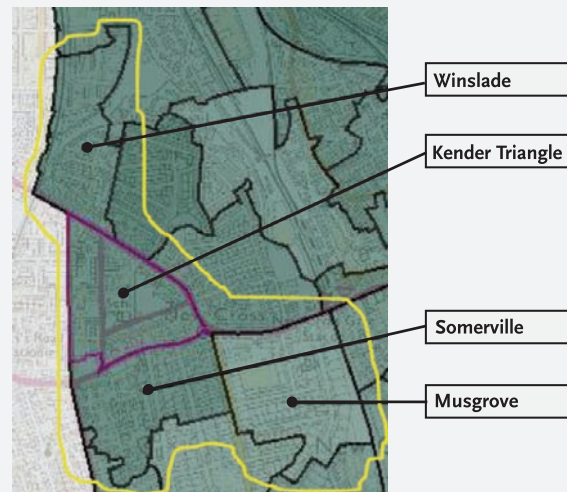
In our research, we wanted to look at those nodes that already link residents from each of the SOAs that make up New Cross Gate. This approach drew out six linking nodes from the data that bridge together all areas, namely: 'helping or being helped by neighbours,' 'shopkeeper,' 'New Cross Gate Post,' 'New Cross Food Co-op,' 'Lewisham College' and 'Postman' **(see figure one)**.

Of these, the generic public figures (shopkeeper and postman) appear to be the strongest bridges between all areas. This suggests that there may be some value in pursuing interventions that build upon the connectivity of such public figures to contribute to community regeneration activities in more explicit ways. Of the linking nodes, Lewisham College is perhaps the least surprising appearance, being a well-established further education institution in the borough.

The New Cross Gate Post (a local newspaper) and the New Cross Food Co-op are relatively recent initiatives that have been delivered and/or supported by the NDC. Perhaps as expected, the NDC itself is not cited as a mutually recognised part of the networks of residents from each of these areas, although sub-projects of the NDC are. With respect to the New Cross Gate Post example in particular, this fact suggests that if we value bridging capital in our communities then the NDC was right in its decision to extend the distribution of the newspaper by local residents beyond the formal boundaries of the NDC area and to include neighbouring areas such as Musgrove **(see figure two, below)**.

Figure 2: Topography of New Cross Gate

Law 3: Location, Location, Location

In theory

The third aspect of networks is that they shape us, and have positive and negative effects depending on our position in the network. For example, being central to a network is good for receiving information and being happy, but bad for avoiding infectious diseases.

At a community level, spreading information about jobs, training and recreation are likely to be more salient issues, but in this respect it is important to recognise that in so far as network location matters, geographic intuitions don't get us very far, as we discovered in New Cross Gate.

In the community

The geographical map in **figure two** shows that the Kender Triangle area is, in spatial terms, right in the centre of New Cross Gate. However the social network map in **figure three** reveals that the Kender residents we interviewed are relatively isolated in network terms. For example, the green circle in the bottom left of the map highlights a sub-cluster of respondents from Kender Triangle (represented by the darker grey nodes), at the periphery of the network.

In network terms, these Kender Triangle residents are placed together, just outside the outer core of the network, which is represented by the yellow circle. Within the central core – the coloured nodes within the centre white circle – there is a preponderance of residents from the Somerville area of New Cross Gate (represented by darker green nodes). It would seem that, to an extent, Somerville acts as a bridge between Winslade and Kender Triangle and the wider New Cross Gate area. The location of this bridge is surprising, given that Somerville does not lie geographically between them. As we have noted before, communities and networks often transcend physical boundaries.

Overlaying geographic data onto social network data can enhance our ability to target interventions. It can help to identify where and how to reach the intended recipients – often obliquely - through the chains of ties and influence that make up the local social structure.
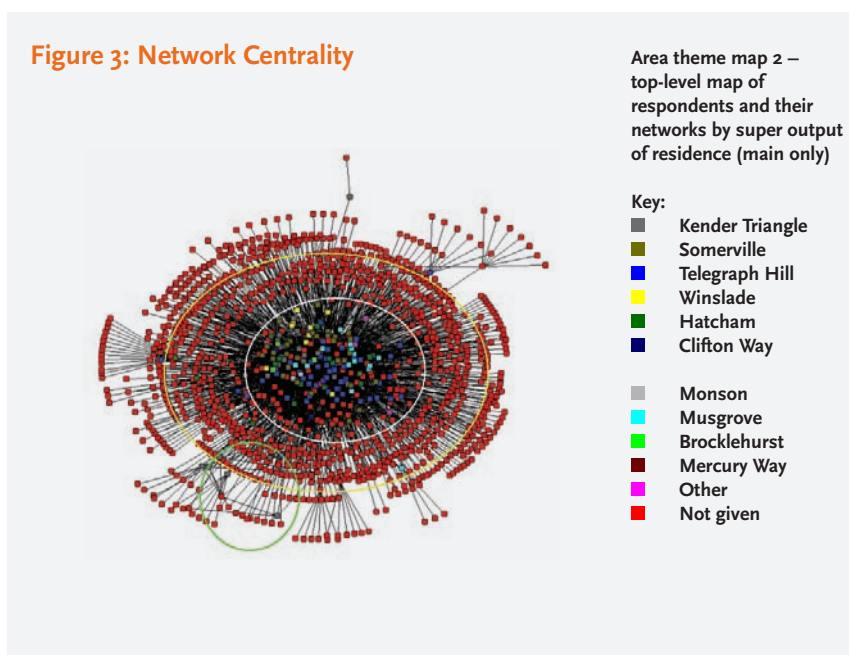
Law 4: Imitation Drives Contagion

In theory

This attribute of networks concerns peer-to-peer mimicry. Subconsciously or otherwise, we end up aping what our friends do and this mimicry is in turn passed on to others in the chain, influencing people several degrees of separation removed from ourselves.

This may be the basis for pressure to 'keep up with the Joneses', with fashion trends and the pressures on children to keep up with the latest fads. Cultural psychologist **Michael Tomasello** has described imitation as the link between biology and culture, and it is this adaptive trait that ultimately underpins the importance of social networks for policy makers. We seem instinctively to want to copy other people and we are most likely to copy the behaviours of people we see and hear every day.[87]

Figure 3: Network Centrality

Area theme map 2 – top-level map of respondents and their networks by super output of residence (main only)

Key:
- ■ Kender Triangle
- ■ Somerville
- ■ Telegraph Hill
- ■ Winslade
- ■ Hatcham
- ■ Clifton Way

- ■ Monson
- ■ Musgrove
- ■ Brocklehurst
- ■ Mercury Way
- ■ Other
- ■ Not given

87 Tomasello M, **The Cultural Origins of Human Cognition**, 1999, Harvard University Press.

88 Cacioppo J and Patrick W, **Loneliness: Human Nature and the Need for Social Connection**, 2008, WW Norton and Co. http://www.thersa.org/events/vision/vision-videos/professor-john-cacioppo---connected-minds-loneliness,-social-brains-and-the-need-for-community

89 **Trust in Practice**, Demos, June 2010.

90 Kahneman D, 2010, op. cit.

91 DiMaggio P, and Powell W, 'The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in organizational Fields', **American Sociological Review** 1983 Vol 48.

...social network theory is complemented by the emerging field of social neuroscience, which is helping us make sense of why social connectivity should matter so much at a cognitive and emotional level.

In this respect, social network theory is complemented by the emerging field of social neuroscience, which is helping us make sense of why social connectivity should matter so much at a cognitive and emotional level. As social neuroscientist **John Cacioppo**, who recently spoke at the RSA explains:

'The telereceptors of the human brain have provided wireless broadband interconnectivity to humans for millennia. Just as computers have capacities and processes that are transduced through but extend beyond the hardware of a single computer, the human brain has evolved to promote social and cultural capacities and processes that extend far beyond a solitary brain. To understand the full capacity of humans, one needs to appreciate not only the memory and computational power of the brain but its capacity for representing, understanding, and connecting with other individuals. That is, one needs to recognise that we have evolved a powerful, meaning-making social brain.'[88]

The fact that imitation is central to network effects was indirectly underlined by a recent study by Demos which indicated that trust was not 'networked'; for example, one person trusting a local councillor had no impact on whether his friends and family trusted the councillor in question.[89] This might seem to indicate that social networks are not so important after all, but in fact the Demos research suggests that network contagion may depend upon literally seeing (and to a lesser extent hearing) other people becoming fatter, smoking less, smiling more etc. The reason trust does not spread is probably because trust is relatively invisible and cannot be 'copied'.

Christakis and Fowler, in their experiment to test whether cooperative behaviour was contagious, found that the punishments for non-cooperation did not seem to influence participants. It seems that we observe the fact of cooperation, but not the reason for it.[90] It could be that observing cooperative behaviour is a powerful and underutilised form of communication.

Imitation also works at the organisational level. DiMaggio and Powell (1983) argue that along with normative and coercive pressures, organisations also experience mimetic pressure. While normative pressures influence acceptable organisational behaviour, and coercive pressures are exerted by central and local government (or generally, the more 'powerful' partner in the relationship), mimetic pressures mean that organisations imitate others for acceptance, status and prestige.[91] DiMaggio and Powell argued that these pressures result in increasing organisational isomorphism over time. In other words, organisations experiencing similar pressures and collaborating would 'converge', adopting similar language, practices, interests and behaviours over time.

The nature of networks is often influenced by the practices and structures of community organisations. Small (2009) found that the networks of people who engage with community-based organisations are dependent on the practices and regulations of those organisations, including seemingly trivial protocols. In his study of childcare centres, Small found that, for example, the way meetings were held, how often field trips were undertaken, the formality of language, the times at which children were picked up and dropped off, and the extent to which users of the centre were able and encouraged to loiter, all influenced the availability of social capital and were often mechanisms for producing social inequality.[92] Thus through imitation, there is a danger of perpetuating 'unhelpful' practices, particularly if their potential impact is not realised.

In the community

Our work to date focuses more on social networks than individual psychology, although we plan to integrate our work with the RSA Social Brain project later in the programme. Consequently, our social network data has not tracked contagion, but there are indicative examples from two strands of our research.

Imitation and social learning was evident at the organisational level within local community and voluntary groups. As the head of one community organisation from New Cross Gate commented:

I suppose I tried to re-fashion the way our organisation worked on (one of the community groups in the area) who had been successful in winning public contracts and getting funding from the NDC. It gave us a way to develop and to get a seat at the table. It worked to an extent, but we had to start using the 'right words' and talk about outputs and budgets and so on. It made us more professional, but I worried that we were losing a bit of our identity and we had to be careful about losing the things that made us attractive to the community in the first place.

In this way, ABIs and the public sector can foster a mutually reinforcing system of mimetic, normative, and coercive pressures through funding requirements, processes and language. Imitation can drive the professionalisation of organisations within this system, but can also foster behaviours and practices that serve to exclude. Imitation is a powerful mechanism for the contagious spread of social phenomena that needs to be understood in the design of interventions, particularly those concerned with behaviour change and the development of the Big Society. Such interventions need to be visible and amenable to mimicry. Our recent report into tackling anti-social behaviour, 'The Woolwich Model', proposes that observing and experiencing people acting in mediating conflict helps such behaviour to spread. In this sense, actions speak louder than words and interventions should focus more on spreading behaviour by example and not simply through rhetoric.[93]

...in so far as network location matters, geographic intuitions don't get us very far, as we discovered in New Cross Gate

Law 5: It's Not What *You* Know, it's *Who* They Know

In theory

This network law tells us that our friend's friend's friends affect us, in the same manner that our friend affects us, but to a different degree, in what is called hyperdyadic spread, a phenomenon that has just recently been possible to observe in large social networks.

We have learnt in the previous law of imitation that we are influenced by indirect ties because imitation is a contagious mechanism. Although I may not see or know people who are my indirect ties, it is enough for somebody I do see to have seen them for me to 'catch' some aspects of whatever behaviour they are propagating. While we used to say that 'it's not what you know but who you know' that matters in life, we now recognise that this is true because of who they know, and how well.

Reed's Law captures the power of hyperdyadic spread, and says, to paraphrase the technical language, that network growth is geometric (2,4,8,16,32, etc.) rather than arithmetic (1,2,3,4,5, etc.). Networks are comprised of groups of varying sizes rather than individuals, so connecting with one group invariably means connecting with more than that group alone, if only because each individual member of a group typically belongs to other groups too. Membership of one group breeds membership of another in a multiplier effect that expands the growth and strength of the network exponentially. This is a noteworthy point given that **Lord Wei**, government advisor on the Big Society, has stated that his principal goal is for everybody in the UK to be part of some sort of group.

The importance of this idea becomes clearer if we consider the shape and nature of networks. Broadcast networks are the most basic form, amounting to a 'one to many' network in which my network is everybody I know, and spreading the word across my network merely means broadcasting information rather than an exchange of information. Transaction networks, or one-to-one networks, are more complex, featuring an exchange of information between two people. However, the most powerful form of network is the many-to-many network, also known as group forming networks or GFNs. These networks are at the heart of Reed's Law, because it is the connection to another group that significantly increases your resources. This bridging or linking capital is the kind of connectivity from which most people benefit.[94]

In the community

To give some geographic context for Reed's Law and the idea of hyperdyadic spread, the following diagram **(see figure four overleaf)** illustrates the myriad of connections between a variety of community groups, people and services in New Cross Gate. Our exploratory research suggests that any contagion will not spread in predicable ways, because network analysis enables us to see disconnects in a community that would otherwise be invisible.

92 Small M L, **Unanticipated Gains – origins of network inequality in everyday life**, 2009, Oxford University Press.

93 http://www.thersa.org/__data/assets/pdf_file/0004/327082/0882RSA_21CE_benrogers_web.pdf

94 Reed expresses his own law in the following technical language: 'Let's say you have a GFN (Group Forming Network) with n members. If you add up all the potential two-person groups, three-person groups, and so on that those members could form, the number of possible groups equals 2n. So the value of a GFN increases exponentially, in proportion to 2n. I call that Reed's Law. And its implications are profound.' 'The Law of the Pack', **Harvard Business Review** Feb 2001 http://projects.rsablogs.org.uk/index.php?s=reed%27s+law

For instance, the two key providers of community services locally, the NDC and the 170 Community Project, both appear in the less connected left-hand column. The relatively small number of connections to these two bodies is striking. Within this it is worth noting that most of these connections are to Somerville residents, with the remaining connections to Kender Triangle residents. Winslade residents included in this representation do not cite connections to either of these projects, despite Winslade falling within the NDC boundary.

One node which we might expect to constitute part of the Winslade residents network is the Millwall FC Community Scheme; given the proximity of The Den, Millwall's home ground, to Winslade. But in this representation of the data the only SOA residents to whom the scheme is not connected is Winslade. Here, then, in two instances we see that the spatial relationships that we might expect (i.e. connections between Winslade and the NDC and the Millwall scheme, given geographical proximity) do not actually happen in network terms.

The diagram also indicates that two less densely connected nodes to which Winslade residents do connect beyond the level of connectivity we might expect are the public figure 'Janitor/Caretaker/Maintenance Worker' and 'School Board or Parents' Association'. If a particular emphasis were put on trying to integrate Winslade residents into the wider community, for example, then social network analysis enables us to identify particular contexts or individuals through which connections might be most effectively made.
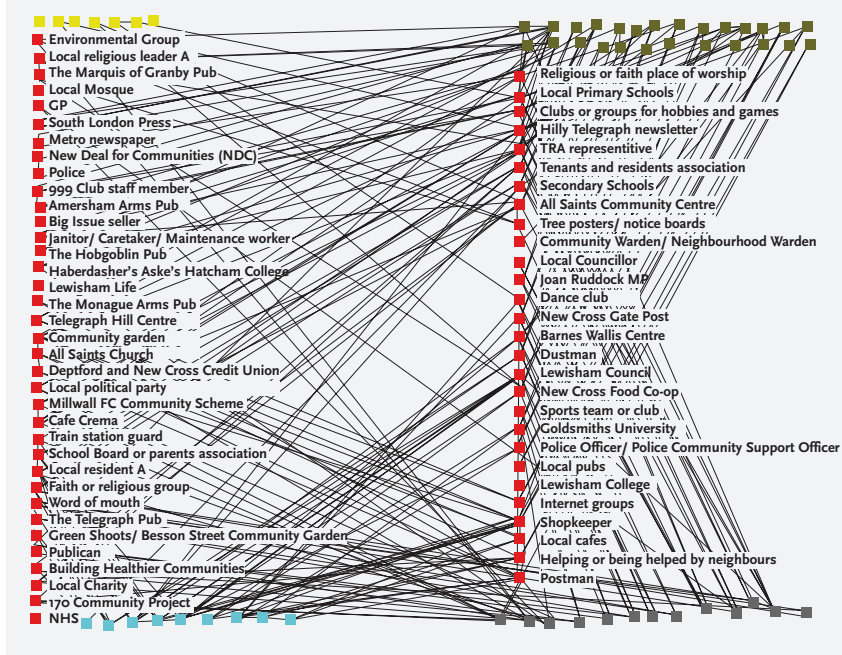
The hyperdyadic spread could be useful in situations where policy makers wish to change behaviour, but need to find a mechanism for doing so that is relatively efficient. Christakis and Fowler comment:

'If we wanted to get people to quit smoking, we would not arrange them in a line and get the first one to quit and tell him to pass it on. Rather, we would surround a smoker with multiple nonsmokers, perhaps in a squad.'[95]

While this suggestion sounds slightly Orwellian, the point is not so much about coercion, but rather a broader notion that efficiently effecting behaviour change requires an understanding of the structure of a network, in order to work with individuals whose behaviour is more likely to influence other relevant parties, and then call on the power of social contagion to increase your chances of success.

In our fieldwork we were struck by the significance, in this digital age, that residents ascribed to 'tree posters/notice boards' as a local means of communication.

Figure 4: Scope for Hyperdyadic Spread in New Cross Gate

Left column:
Environmental Group
Local religious leader A
The Marquis of Granby Pub
Local Mosque
GP
South London Press
Metro newspaper
New Deal for Communities (NDC)
Police
999 Club staff member
Amersham Arms Pub
Big Issue seller
Janitor/ Caretaker/ Maintenance worker
The Hobgoblin Pub
Haberdasher's Aske's Hatcham College
Lewisham Life
The Monague Arms Pub
Telegraph Hill Centre
Community garden
All Saints Church
Deptford and New Cross Credit Union
Local political party
Millwall FC Community Scheme
Cafe Crema
Train station guard
School Board or parents association
Local resident A
Faith or religious group
Word of mouth
The Telegraph Pub
Green Shoots/ Besson Street Community Garden
Publican
Building Healthier Communities
Local Charity
170 Community Project
NHS

Right column:
Religious or faith place of worship
Local Primary Schools
Clubs or groups for hobbies and games
Hilly Telegraph newsletter
TRA representitive
Tenants and residents association
Secondary Schools
All Saints Community Centre
Tree posters/ notice boards
Community Warden/ Neighbourhood Warden
Local Councillor
Joan Ruddock MP
Dance club
New Cross Gate Post
Barnes Wallis Centre
Dustman
Lewisham Council
New Cross Food Co-op
Sports team or club
Goldsmiths University
Police Officer/ Police Community Support Officer
Local pubs
Lewisham College
Internet groups
Shopkeeper
Local cafes
Helping or being helped by neighbours
Postman

Policy makers have to accept that in so far as community policy identifies communities as networks rather than areas, the outcomes of their policies are in principle much less predictable

It appears that not only was this practice prevalent, as noted by many of the fieldworkers involved in this research, but also that it was the medium usually mentioned as significant in response to the question: *'Where do you go or who do you speak to in order to find out what's going on in your local area?'* In this way, such technologically simple methods can be used to build bridges into groups for individual citizens, and for otherwise unconnected groups to join or build common members.

Law 6: Experimentation Gets Results

In theory

Networks have emergent properties such that the whole cannot be understood with reference to the parts, nor can you predict the behaviour of the whole with respect to the parts, or vice-versa. Networks operate like any other complex system, in which the path between cause and effect cannot be reliably traced.

Recognising communities as networks therefore brings a degree of legislative humility. Policy makers have to accept that in so far as community policy identifies communities as networks rather than areas, the outcomes of their policies are in principle much less predictable.[96] This is difficult for governments to tolerate, but, as numerous commentators have indicated, the acid test of whether governments can really embrace localism is the extent to which they are willing to let go not only of the traditional processes of policymaking, but also of ownership and certainty in the outcomes.

A lack of predictability is problematic given that government departments are accountable for the money raised through taxation, and need to justify their spending choices. Rationales based on 'evidence' tend to be the most credible, and what government ideally wants is therefore evidence that says: 'X leads to Y; we care about Y therefore we are justified in spending on X.'

In the community

Policy-makers do not necessarily expect the world to conform to such rough logic, but nonetheless departmental structures and budget timetables lend themselves to a relatively linear model of thinking, in which one chooses a metric of success and then strives to see it increase. This approach may perpetuate problems in policy areas where awareness of complexity and emergence is key. As we have indicated above, this appears to be the case with communities, which are not areas but systems, not groups of individuals with stable demographic data, but networks with unstable patterns of connectivity. As community development consultant **Alison Gilchrist** puts it:

'One of the hallmarks of an open, complex adaptive system is its unpredictability...Attempts to monitor the effectiveness of community development using prescribed targets and timescales is therefore inappropriate, although indicators which track changes in capacity, connectivity and cohesion are probably valid.'[97]

95 Christakis N and Fowler J, 2009, op. cit, p131.

96 Ormerod P, 2010, op cit.

97 Gilchrist A, 2009,op. cit. p127

An example of this is seen in the significantly different impacts of similar projects in similar areas. Both New Cross Gate NDC and Clapham Park NDC areas ran Timebanking projects to encourage volunteering, and Lifestyle Opportunities for Older People (LOOP) projects to encourage participation in healthy activities and lifestyle choices among older people. In both cases, project proposals were very similar and both had similar resources and implementation plans. In New Cross Gate, the LOOP project established a series of healthy lifestyle and health awareness activities resulting in improved levels of health among older people. The project failed to achieve such impacts in Clapham Park by a considerable measure.[98] Conversely, the Clapham Park Timebank project resulted in a significant shift in the overall levels of volunteering in the area, compared to no significant shift in New Cross Gate.[99]

Such substantially different outcomes make lessons for replicating and scaling activities, sharing good practice, and evaluation much more difficult. A further reason for promoting the role of social network analysis at a community level is that it provides a tool to track emergent properties, and allows for the measurement of the shape and directionality of change without relying on linear accounts of causality. In this way, more helpful lessons can be gained about the conditions for supporting successful projects and also about the domino effects of change.

Law 7: Weak Ties Get You Working

In theory

Ties between people vary in strength, and the nature of our connections is often more important than their number. While the network 'laws' outlined above help to clarify the explanatory power of social networks, it is probable that the single most important element of network theory at a community level is what are known as 'weak ties'.

Mark Granovetter's seminal work on 'weak ties' highlighted that opportunities, particularly employment opportunities, are more likely to arise from people we don't know very well who have connections to other networks.[101] For this reason, **Alison Gilchrist** suggests that community development is mainly concerned with strengthening and extending the 'weak ties' or, in social capital terms, the 'bridges' and 'links', particularly in situations where people find it difficult to meet and make connections.[102]

However, weak ties are strong only when they connect at least two networks that have strength, as **Andy Clark** indicates: *'Not all weak ties are important, however, but rather those that act as bridging ties between two different networks of strong ties, along which ideas, innovations, information and artefacts flow.'*[103]

Identifying and making use of weak ties appears to be relevant to community regeneration for three main reasons. First, as Granovetter argued and as a recent IPPR report indicates, employment opportunities are more likely to arise from weak ties.

Connect through your similarity and profit from your diversity.
— **Krebs and Holley**[100]

98 **Evaluation of the LOOP project**, New Cross Gate NDC, 2006

99 **Evaluation of the Timebank Project, Clapham Park NDC**, 2006; and NDC Household Survey 2006, 2008, Ipsos-MORI

100 Krebs V and Holley J, **'Building S mart Communities through Network Weaving'**, 2006, http://www.orgnet.com/BuildingNetworks.pdf

101 Granovetter M, **Changing Jobs: Channels of Mobility Information in a Suburban Community**, 1970, Doctoral dissertation, Harvard University; Granovetter M, 1973, op cit; Granovetter M, 1983, op cit; Granovetter M, 'The Impact of Social Structures on Economic Development', 2004, **Journal of Economic Perspectives**, Vol 19 (1).

102 Gilchrist A, 2009, op cit.

103 Clark A, **'Real Life Working Papers: Understanding Community'**, May 2007 http://www.reallifemethods.ac.uk/publications/workingpapers/2007-05-rlm-clark.pdf

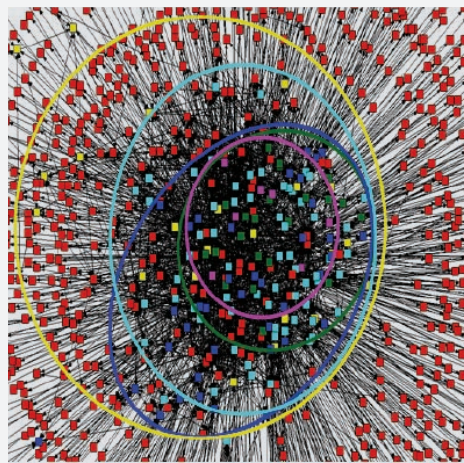104 Sumption M, 2009, op cit.

105 Granovetter, 1973, op cit.

106 Ibid.

107 Granovetter, 1983, op cit.

This point is particularly relevant in the context of NDC evaluation, which showed very little positive impact on employment. Social network analysis provides us with the micro-level data to make this kind of analysis and design of intervention possible. [104]

Secondly, weak ties are a key element of social cohesion. Granovetter explains that *'Weak ties play a role in effecting social cohesion. When a man changes jobs, he is not only moving from one network of ties to another, but also establishing a link between these.'* [105] He adds: *'The more local bridges...in a community and the greater their degree, the more cohesive the community and the more capable of acting in concert.'* [106]

Thirdly, the significance of weak ties should inform arguments about social justice, because we now know that those in poverty, to their detriment, rely on strong ties more than other sections of the population:

The heavy concentration of social energy in strong ties has the impact of fragmenting communities of the poor into encapsulated networks with poor connections between these units; individuals so encapsulated may then lose some of the advantages associated with the outreach of weak ties. This may be one reason why poverty is self-perpetuating. [107]

These three points seem particularly persuasive with respect to our contention that defining community with arbitrary, or even logical, geographic boundaries may perpetuate certain social problems, and also suggests a profoundly inefficient use of resources. However, while recognising the value of weak ties is critical, they should not be overvalued as ends in themselves. Recent government rhetoric on the need for 'strong communities' is appropriate in this regard, as long as it recognised that community strength does not mean monolithic geographical areas where everybody knows everybody else, but multiple and diverse community networks that are strong insofar as they have points of contact (weak ties) through which they can share skills, information and support.

In the community

Considering the significance of weak ties for employment, in New Cross Gate we discovered that, whether as cause or consequence, unemployed respondents appeared to have smaller networks, and were more likely to be on the periphery in network terms **(see figure five overleaf)**. Those not in work were more likely to be found far from the core of the network, and were less well-integrated. Similarly, retired individuals were also more likely to be less central to the community network, and consequently more likely to be isolated.

We also found that within the core network, those 'in work' (light blue nodes in **figure five** and 'in education/training' (dark blue nodes) appeared to be relatively tightly clustered. It is possible that this reflects differences in bonding capital in these groups, with those economically active more likely to associate with each other and gain advantageous links, opportunities, access and information, and further 'weak ties' as a result of their more central location in the network, and tendency to cluster with those who have similarly advantageous connections.

Figure 5: Networks Relating to Employment and Training

Key for nodes (squares) and node clusters (circles):

- 🟦 In education/ training
- 🟦 In work
- 🟩 Retired
- 🟪 Other
- 🟨 Unemployed
- 🟥 Not given

Our data suggests that unemployment is correlated with low levels of connectivity, which is not surprising, but we found that potentially empowering social networks can be further eroded through high levels of transient populations that often characterise target neighbourhoods. The proportion of residents who have lived in the same area for less than a year, for example, is about 25% higher in New Cross Gate than the national average. In our qualitative research, the transience of the local population was felt to be a barrier to building the networks that might strengthen the community. As one disgruntled local resident put it: *'People are fighting to leave the area because of the violence... the people who move in don't give a hoot about the area, as they'll only be here for a couple of years... I don't know my neighbours anymore.'*

4.2 UNDERSTANDING NETWORK FUNCTION: CONTAGION

'The phenomenon of 'social learning'- learning through observation and interaction with others- occurs widely in various forms... Many of the decisions we make are based not so much on the independent rational calculation of the costs and benefits of different actions- the mode of behaviour posited in economic theory- but on observing and copying others."
— **Paul Ormerod**[108]

In theory

Patterns of connectivity have considerable diagnostic value. They also have a prescriptive element, because a variety of attitudes and habits spread through social networks. For example, experimental research by Austrian economist **Ernst Fehr** suggests that most people are 'conditional altruists' who will cooperate if they believe others will reciprocate.[109] However, populations are diverse and contain their share of 'egoists', who tend to collaborate less. These people strongly influence the likelihood of others cooperating. In a related study, analytical sociologist **Peter Hedström** has shown that, with just 5% of a population acting as 'egoists', social interaction effects between them and conditional altruists can lower the rate of overall cooperation in a network by about 40%.[110]

More recently, a controlled experiment by Christakis and Fowler[111] attempted to discover whether witnessing cooperative or uncooperative behaviour might promote changes in cooperative behaviour even when reputations are unknown and reciprocity is not possible. The results suggest that the contagion of behaviour is path dependent, and it appears that mimicry trumps conventional rational self-interested behaviour:

'A consistent explanation for both the experimental investigations and the observation studies is that people mimic the behaviour they observe, and this mimicking can cause behaviours to spread from person to person. If anything, it seems likely that people who are willing to copy strangers' behaviour in a controlled experiment may be even more likely to copy behaviour observed in real-world settings.'[112]

The contagion of behaviours in social networks is important for any government policy based on behaviour change, and delivering 'more for less'. Government cannot, for instance, tackle crime and antisocial behaviour, unemployment, unhealthy life-styles, chronic ill-health, mental illness, inter-ethnic tensions, or reduce carbon emissions without the active participation of the public.

The kinds of behaviour change governments need in order to achieve policy objectives often arise precisely because of 'contagion' spreading through social networks. For instance, with respect to public health objectives, **Brian Wansink** has demonstrated that by unconsciously imitating people around us all the time we develop habits of unnecessary eating, wherein we eat more than we might want or need simply because we are surrounded by other people who are over-eating.[113]

In terms of improving road safety, Christakis and Fowler suggest that if you want more people to wear seatbelts, the message should be focused on people near the centre of social networks, so that the behaviour is more likely to spread. This strategy of using network information to effect social change applies more generally.[114] In practical terms, having the blueprint of community networks enables us to locate and work with key influencers and meta-networkers, as suggested in the example below.

In the community: Familiar Strangers: Dustmen, Lollipop Ladies and Quiz Masters

In exploring the core nodes of New Cross Gate, we found that public figures are central to the social networks here. In particular, public servants — postman, police officer/Police Community Support Officer and dustman — rank particularly highly in terms of how connected they are. This finding highlights the relative importance of public servants compared with formal political figures.

The postman (as a generic public figure, not the same postman each time) has the highest 'coreness' value in the New Cross Gate network, and is potentially a key link in any network-based strategy for community regeneration. Preliminary findings indicate that, in network terms at least, these individuals and others like them (for example lollipop ladies) wield significant latent power in the community. Current community initiatives should therefore consider how they can better harness such centrality and power to serve community needs.

108 Ormerod P, 2010, p14

109 Fehr E and Fischbacher U, Altruists with Green Beards, 2005, **Analyse & Kritik**, Vol 27

110 Hedstrom P, 'Actions and Networks: Sociology that Really Matters...to Me'. 2007, **Sociologica**, Vol 1

111 Christakis N and Fowler J, Jan 25 2010, op cit. The experiment was based on the Fehr-Gaechter Public Goods Experiments, in which participants were placed in groups of four, and each subject was given 20 money units (MUs) and they had to decide how many to keep and how many to contribute to a group project.

Each MU spent is costly to the individual but beneficial for the group. If each group member keeps all 20 MUs, they will make a maximum of 20 Mus, but if each member gives away 20 Mus, they will each earn 32 MUs. Despite the opportunity to improve outcomes, each individual can always earn more by contributing less.

Subjects made their decisions without initially seeing their fellow group member's decisions, but all contributions were revealed to each group member at the conclusion of the game, along with payoff outcomes. In an alternate version, subjects played an identical game, but after viewing their fellow group members' contributions, and were allowed to spend one MU to 'punish' another member, lowering their income by 3 MUs.

In both versions, subjects participated in six repetitions and the repetition showed that contributions tend to decline in the basic public goods game and to increase in the public good games with punishment. However, crucially, the research design enforced strict anonymity between subjects, and no subject was paired with another subject more than once.

This lack of repeated contact made it possible to distinguish between punishment, direct reciprocity, indirect reciprocity and costly signalling on the effect of cooperation.

112 Ibid.

113 Wansink B, Mindless E ating: Why We Eat More than we Think, 2006, Bentam–Dell

114 Christakis N and Fowler J, 2009, op cit.

Such individuals could ultimately become not only service providers in an instrumental way (the dustman sweeps the street) but also in more indirect ways by communicating local information, acting in pro-social ways that can be mimicked, and reporting local sentiments back to the local authority. Acquiring this network-consciousness could help to change the approach to such public servants, and open up the possibility of greater co-production and 'more for less' in terms of delivery.

For example, the RSA report 'The Woolwich Model' looks at the potential for reducing anti-social behaviour by training such frontline public servants (and other 'core' community members) in the skills of situational analysis, conflict resolution and management and self-protection that the police already acquire and deploy as a matter of course.[115] It also raises the importance of including social skills and network weaving skills in the requirement criteria and the training programmes for employing such public servants. These ideas are revisited towards the end of the report.

Network structure and function: a word of caution and reflection

Although the evidence for social contagion is strong, and growing stronger, it is important to realise that networks in themselves are morally neutral, and only serve to 'magnify whatever they are seeded with.'[116] A related cautionary point is that networks are what we make them:

'Networks are not always the organisational panacea that many envisage, often failing to fulfil their intended function. They contain patterns of prejudice, preference and power because they are based largely on personal choices that are both 'tactical and strategic'.'[117]

Nonetheless, we believe the evidence on connectivity and contagion provides a timely opportunity for increasing efficiency. We need to recognise that aspects of network structure, particularly homophily and weak ties, should inform any initiatives directed at creating employment. In terms of hidden wealth, we can use social networks as a more powerful diagnostic tool to identify patterns of isolation and opportunities for care-based exchanges. In terms of behaviour change, we need to recognise the importance of imitation as the means through which positive behaviour change can spread, particularly with regard to health outcomes. In addition to these major findings which are now well established, social networks also create an interesting and relatively unexplored opportunity to increase community reflexivity.

115 http://www.thersa.org/about-us/media/press-releases/the-big-society-approach-to-anti-social-behaviour

116 http://www.thersa.org/events/vision/vision-videos/nicholas-christakis-connected

117 Gilchrist A, 2009, op cit. p56

118 Delanty G, **Community (London)**, in Clark A, 2007 op cit.

119 Based on the work of RSA research fellow Stephen Feber as part of Yorkshire Forward's Renaissance Programme, detailed in The Regeneration Game, RSA Journal Spring 2009.

120 Giddens A, **'Beyond Left and Right'**, 1994, Polity Press

121 Grist M, **Steer: Mastering our Behaviour through Instinct, Environment and Reason**, June 2010, RSA

122 Thaler R and Sunstein C, **Nudge: Improving Decisions about Health, Wealth and Happiness**, 2008, Yale University Press

123 **Personal Responsibility and Changing Behaviour: the State of Knowledge and its Implications for Public Policy**, February 2004, Cabinet Office Discussion Paper, Prime Minister's Strategy Unit; **Mindspace: Influencing Behaviour Through Public Policy**, March 2010, Cabinet Office Discussion Document, Institute for Government.

4.3 COMMUNITY REFLEXIVITY: NETWORK ANALYSIS AS BOTH INTERVENTION AND DIAGNOSTIC

Community today is abstract and lacks visibility and unity...(it is) more an imagined condition than a symbolically shaped reality based on fixed reference points.[118]
— **Gerard Delanty**

Social networks can be visualised. Our own exploratory research hints that the process of visualising networks through participatory methods – getting people to map their own community connections, for example – can in itself increase the strength of connections in local communities.[119] As **Anthony Giddens** indicates, such reflexivity is an increasingly pervasive feature of modern life:

'Social reflexivity is both condition and outcome of a post-traditional society. Decisions have to be taken on the basis of a more or less continuous reflection on the conditions of one's action. 'Reflexivity' here refers to the use of information about the conditions of activity as a means of regularly reordering and redefining what that activity is.'[120]

In a post-traditional society we are increasingly aware of the conditions of activity (i.e. their underlying principles); we don't just do things unthinkingly but have to make choices in light of this awareness. Moreover, our choices define what activities mean. If two gay men marry they are taking the underlying principles of marriage (commitment, fidelity) and reinterpreting them, whilst at the same time changing the institution of marriage.[121] In a similar fashion, if we look at the social network of a community we live in, we become more aware of the conditions of our activity, and change the nature of community as we have come to think of it. For this reason, in year two of our project we will research the impact of visualising social networks on social reflexivity.

The RSA Kinship Project case studies outlined in section 3.3 also indicate that visualising a social network representing improved social inclusion and mental wellbeing in itself reinforced those feelings. We do not know how this impact decays or changes behaviour beyond the reported experience, but the momentary reflexive practice did produce the outcome that longer term intervention was trying to bring about.

In some research, people who are asked to reflect on the experience of participating in it later report enhanced outcomes. As Thaler and Sunstein have noted, although designed primarily to catalogue behaviour, surveys actually affect people's conduct through a 'mere-measurement effect'.[122] Part of this phenomenon is explained by the fact that when people are asked what they intend to do, they become more likely to act in accordance with their answers. For instance, by asking people about who or what they know, individuals are far more likely to reflect on their relationships and change their behaviour as a result.[123] As one respondent in New Cross Gate put it:

'Going around asking questions about networking to people who should be doing it can prick the conscience of organisations to strengthen and build on the loose networks we already have.'

Reflexivity has important implications for the way that collected information is presented. Indeed, the framework for effective participation set out by Lowndes et al. indicates feedback as a simple but highly effective behaviour change tool.[124] The research process of social network analysis therefore has the potential to be socially beneficial, but so does the research outcome because the resulting networks can be visualised and mapped for individuals and the community as a whole to see.

The map provides a mirror through which people see patterns of connectivity and possibilities for contagion. This process of visualisation may in itself make people view themselves in a more pro-social way.

Given that social networks are potentially viewed as private assets as much as public goods,[125] this consideration should inform the nature of the sociograms we use to encourage reflexivity. Ego networks portray connectivity as a private asset, while global networks, in which we see ourselves as part of a larger whole, may be more likely to make us think of networks as a public good.

Another important point concerns the research ethics of sociograms, and how we respect peoples' privacy. Many may want to take part in social network analysis and know about local social networks, but may not want their own social network to be on public display. We are considering how best to address these issues on an ongoing basis, and in our social network research in New Cross Gate we coded the data by number so that people who wanted to see their ego network could do so, but individuals are not named in any of our public-facing maps.

Summary

- Social networks are dynamic, complex systems that operate in unpredictable, strange and as yet unclear ways.

- However they appear to be governed by certain structural (connectivity) and functional (contagion) characteristics that influence the flow of information and behaviour through the network.

- Understanding these principles, and designing interventions on this basis, may increase our chances of delivering positive outcomes through a combination of public policy and grassroots activism.

- The very act of undertaking social network analysis in a community, and presenting the community with a visual representation of their network, may itself be beneficial for encouraging pro-social behaviour.

The map provides a mirror through which people see patterns of connectivity and possibilities for contagion. This process of visualisation may in itself make people view themselves in a more pro-social way.

SECTION 5: APPLYING NETWORK PRINCIPLES TO COMMUNITY PROBLEMS

In section four we outlined the structure, function and process of social networks (connectivity, contagion and reflexivity) and indicated why this approach seems timely in terms of addressing the challenges of efficient resource allocation, making better use of hidden social wealth and fostering positive behaviour change.

The second year of our programme is geared towards using our network data from year one as a platform to develop community-generated initiatives and policy ideas. At this stage we can highlight three broad areas of community policy which would benefit from a network-based understanding of the problem, as well as from using this approach as part of the solution.

Firstly, we look at the problem of loneliness and social isolation, and the potential to draw on untapped sources of support. Secondly, we look at sources of community resilience and adaptability as a form of hidden wealth. Thirdly we examine the potential for networks to enhance community empowerment – the ability of an individual or community to be in charge of their own life/lives and to shape the actions of public bodies – by using the leverage that exists at the core of the community's social network.

5.1 SUPPORTIVE COMMUNITIES: TACKLING LONELINESS AND ISOLATION

'Evolution fashioned us not only to feel good when connected, but to feel secure. The vitally important corollary is that evolution shaped us not only to feel bad in isolation, but to feel insecure, as in physically threatened.'
— **John Cacioppo and William Patrick**[126]

Combating isolation ought to be viewed as a goal of regeneration. Even though isolation affects a relatively small number of people, it directly places a strain on public resources because, as Cacioppo and Patrick indicate, health and wellbeing suffers as a result:

'Given the importance of social connection to our species...it is all the more troubling that, at any given time, roughly twenty per cent of people feel sufficiently isolated for it to be a major source of unhappiness in their lives... This finding becomes even more compelling when we consider that social isolation has an impact on health comparable to the effect of high blood pressure, lack of exercise, obesity, or smoking.'[127]

A networks approach gives us a clearer understanding of these patterns of social inclusion and exclusion. In New Cross Gate, all the workers consulted spoke of the importance of conducting outreach to expand access to community activities among residents, especially those who do not easily come forward for services. People who do not speak English as a first language, ex-offenders, retired people, people with low self-confidence, and people with literacy problems were among the groups cited.

124 Lowndes V, Pratchett L, and Stoker G, 'CLEAR: An auditing tool for citizen participation at the local level', 2006. http://www.ipeg.org.uk/papers/clear_sept06.pdf. The framework contends that participation works when people are involved in such a way that they: Can participate, L ke to, are Enabled to, are Asked to, and are Responded to when they do.

125 Halpern D, 2005, op cit.

126 Cacioppo J and Patrick W, **Loneliness: Human Nature and the Need for Social Connection**, 2008, p 15, WW Norton and Co.

127 Ibid, p5

In our research, one community worker argued that for practical reasons, organisations have to focus on people on the margins, but not the most excluded: *'There are individuals and families so disgruntled and angry that they don't want to be part of things, they put up the drawbridge, so you have to look at families who are just on the edge.'*

Other workers made a case for reaching the socially and economically marginalised through available family and friends and other organisations. A social network analysis has the potential to create some leverage to reach those who are most excluded, because it can indicate ties through which the most excluded can be reached.

Some people are hardly connected at all. As **figure six** indicates, from our survey in New Cross Gate we revealed that 5% of respondents had no weak ties, while 2% of people were completely and utterly isolated.

Looking at all of these isolated respondents as a group, more than half are older people (55+, with most of these 65+) while approximately three quarters have lived in the area for ten years or more, and, surprisingly, none are new arrivals to the area. Some sample quotations from these respondents who are relatively isolated suggest that their isolation is partly due to available amenities and chosen activities:

'I used to use the local laundry until it closed – now I use the one in Deptford, so I tend not to see local people'
— **Retired Black African resident living for more than ten years in New Cross Gate.**

'The only activity I do is watch TV'
— **White British retired man, over 75.**

However, some isolation will be more to do with personal attributes:

'I'm not a very sociable person, if I have to give a rating on sociability it would be a zero'
— **35-44 year-old male, over 10 years in New Cross Gate.**

Those without any ties at all, 2% in our research, remain harder to reach, but at least social network analysis can highlight who and where they are, making it easier to direct resources to those most in need. In the first instance, once isolated people are identified by understanding their lack of networks, steps to help them make local connections to individuals and groups can be identified (which may take the form of befriending, and personal introductions to and by local people).

Figure 6: Isolation and Exclusion in New Cross Gate (N=280)

	Type of connection	No ties at all
1	People you know well	6%
2	People you don't know so well	7%
3	Places, groups, activities, organisations	7%
4	2 and 3	5%
5	1,2 and 3	2%

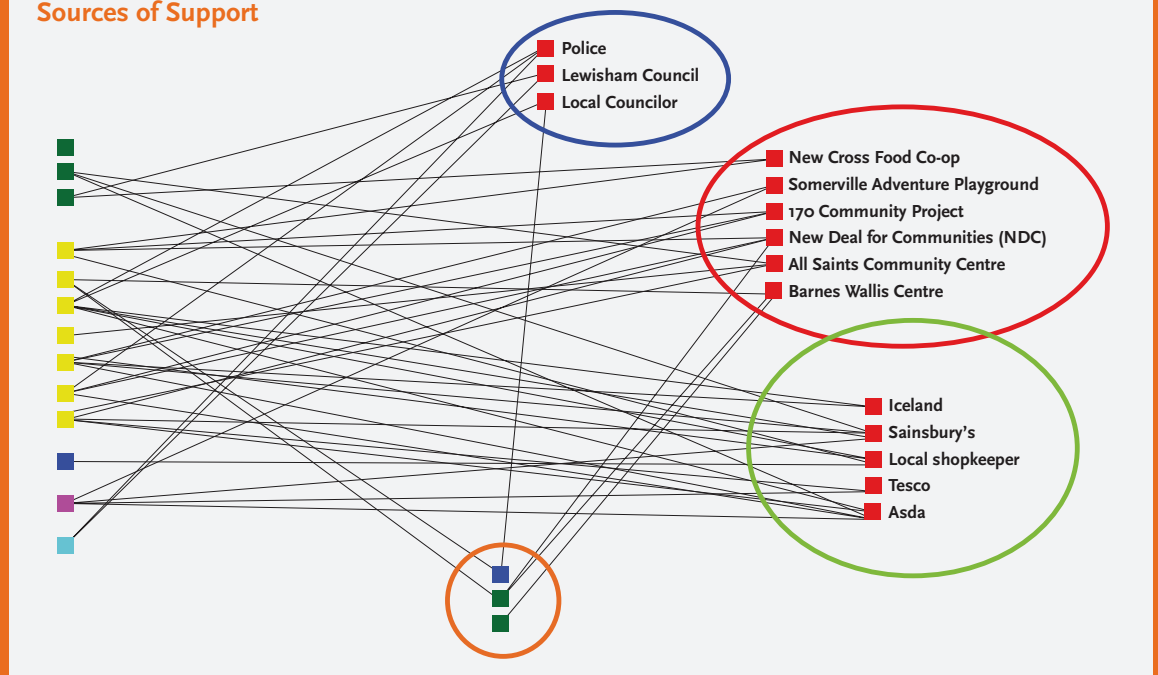## COMMUNITY CASE STUDY: UNTAPPED SOURCES OF SUPPORT IN NEW CROSS GATE

In the illustration below, the main outliers (in terms of isolation) have been picked out. Their individual networks are shown in order to identify which organisations/individuals these isolated individuals link to, since this could provide nodes that may be able to bridge between the core and the periphery of the network. The nodes on the left are the isolated respondents, and at the right are the different nodes to which they are linked; local council/public services (blue circle), community groups/activities/centres (red circle), shops (green circle), and private individuals (orange circle).

Most of the respondents reported some type of link to one or more of the shops and the community groups/centres. Of the latter, the 170 Community Project was particularly well-connected, as were the Somerville Adventure Playground, the NDC, the Barnes Wallis Centre and the All Saints Community Centre.

Sainsbury's, the only supermarket in the NDC area, is clearly linked to other respondents in the network, including three who are 'in work'. This point highlights the potential for Sainsbury's to act as an important bridge between employed and unemployed clusters in the local network — potentially a practical illustration of Granovetter's weak ties thesis. We will explore ways to develop such bridges in the next phase of our work.

Figure 7: Isolated Individuals and Sources of Support

COMMUNITY CASE STUDY: KINSHIP IN THE CONTEXT OF ISOLATION

Building social assets is a crucial aspect of tackling social isolation.[128] Alongside our social network analysis, we undertook case studies exploring the social networks of people with poor mental wellbeing who were socially isolated.[129] The case studies illustrated that such individuals had very thin networks, and that the relationships that did exist provided little support and were often sources of anxiety and problems.
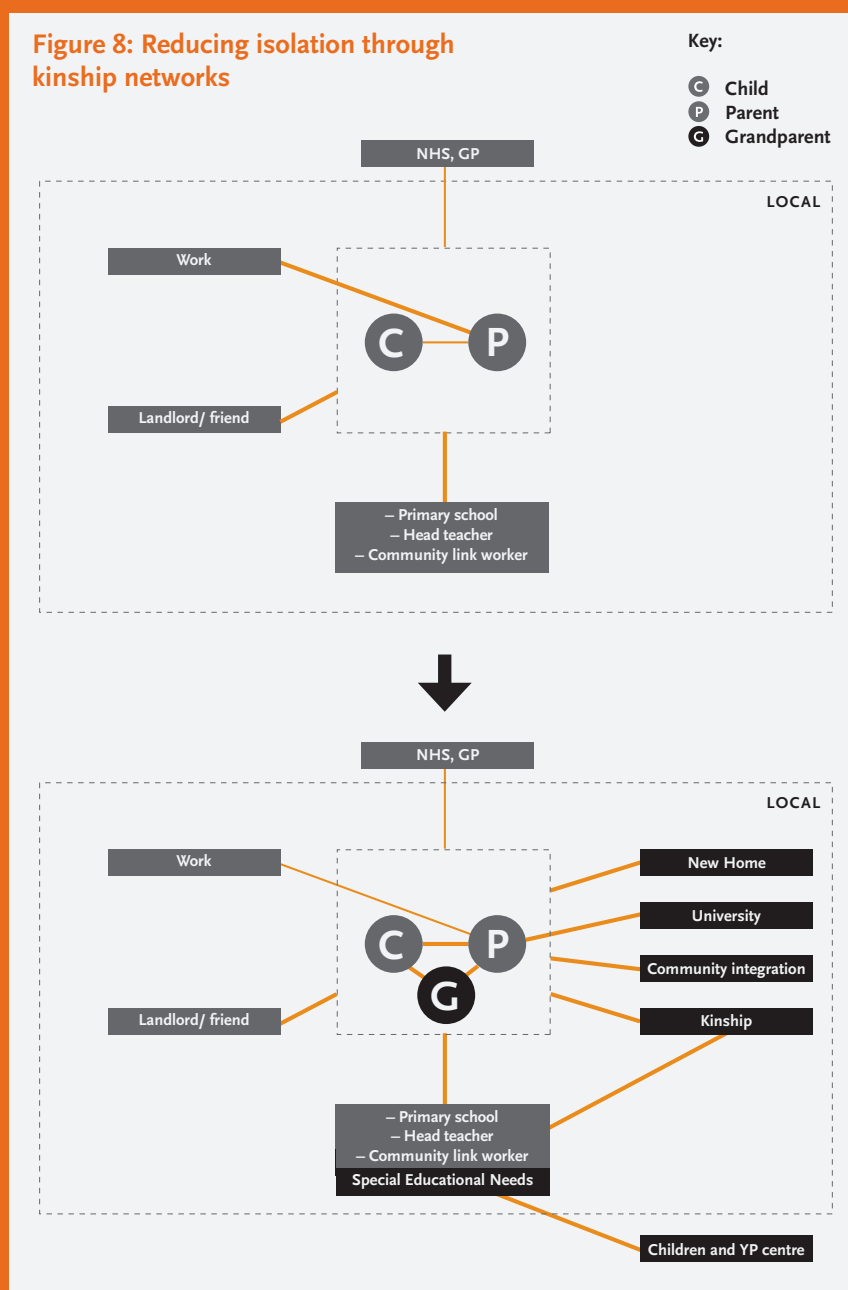
In most cases, thin networks were due to mental health problems impacting on the ability of families to retain social ties through work, friends, hobbies and leisure interests, and of recent arrival in the area – and in some cases, recent arrival in the country. The 'negative contagion', in Christakis' terms, that was experienced by those supported by the Kinship Project included the influence of local gangs and violent crime, and the impact of mental health problems suffered by parents transmitting throughout families in a negatively reinforcing cycle.

Through support provided by the project, beneficiaries' networks were developed in such a way that they gradually moved from the periphery of the community towards the core (see figure eight). Schools were often key hubs through which this task was facilitated; project staff developed connections through their own contacts and knowledge of the community for those who were isolated, working effectively as 'meta-networkers'.

In mapping the social networks of those supported by the project it became clear that a wide range of perhaps unexpected local actors were key to supporting the first steps to reconnection.

Such actors included local shopkeepers and mini-cab drivers who had regular contact with the families concerned and who developed trust and an understanding of their lives. This mirrors our analysis of the wider social networks across New Cross Gate.

Figure 8: Reducing isolation through kinship networks

Key:
- **C** Child
- **P** Parent
- **G** Grandparent

In conducting the research, we mapped the changes in networks over time for those supported by the project. Visual representations of the 'post-intervention' social networks of families were replayed to the families concerned. In discussion, it appeared that reflecting on their networks in a visual way reinforced the feelings of social inclusion and mental wellbeing the project had fostered, and also increased a sense of belonging, identity and solidarity with the local community. We aim to test further the idea of visual social reflexivity in the next stages of our work.

5.2 RESILIENT COMMUNITIES:REDUCING FRAGILITY AND MAINTAINING CONNECTIVITY

Robert Putnam, in his seminal work on social capital, *Bowling Alone*, conjectured that a resurgence in civic participation might follow from 'a palpable national crisis, like war or depression or natural disaster.' The financial crisis and subsequent recession may not be the scale of crisis Putnam had in mind, but the economic downturn invites alternative approaches to building social capital and fostering pro-social behaviour.[130] What the recession has wrought is the need for a deeper understanding of resilience, of our capacity to withstand setbacks and unexpected shocks to the social and economic system. Resilience is an ecological concept and concerns adaptive capacity. It is not about keeping everything the same, but about having some control over the changes to which we are subject. **CS Holling** defines it as:

'The capacity of an ecosystem to tolerate disturbance without collapsing into a qualitatively different state that is controlled by a different set of processes. A resilient ecosystem can withstand shocks and rebuild itself when necessary. Resilience in social systems has the added capacity of humans to anticipate and plan for the future.'[131]

By resilient we mean the capacity of a place or people creatively and successfully to cope with and adapt to anticipated or unexpected circumstances that threaten to deplete existing financial, social and cultural resources. We are beginning to make sense of how resilience can be understood in network terms.

The two major factors appear to be a) the strength or fragility of key community hubs including their degree of interconnectedness, and b) the extent to which networks forming to solve particular problems remain constructively connected after a problem is solved. This latter point is related to the extent to which people value helping or being helped by neighbours more generally. The example overleaf from Knowle West provides a useful case study to illustrate some of these themes.

128 Christakis N and Fowler J, **'The Spread of Obesity in a Large Social Network Over 32 Years'** New England Journal of Medicine, (26 July 2007) 357 (4): 370–379; Christakis, NA; Fowler, JH (22 May 2008). **'The Collective Dynamics of Smoking in a Large Social Network'** (PDF). New England Journal of Medicine 358 (21): 2249–2258; Fowler, JH; Christakis, NA (3 January 2009). **'Dynamic Spread of Happiness in a Large Social Network: Longitudinal Analysis Over 20 Years in the Framingham Heart Study'**

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129 The case studies were selected from people supported by the Kinship Project: an initiative funded by New Cross Gate NDC and the Child and Adolescent Mental Health Services (CAMHS) team at the South London and Maudsley NHS Foundation Trust. The project works with children, young people and parents, directly supporting those in need; building capacity in the local community to recognise, and support mental health recovery; and builds networks to better integrate those working with the project (back) into community life and support.

130 **'Mindspace: Influencing Behaviour Through Public Policy'**, Cabinet Office Discussion Document, Institute for Government, 2010.

131 Holling CS, **'Resilience and Stability of Ecological Systems'**, Annual Review of Ecology and Systematics, 1973, Vol 4.

COMMUNITY CASE STUDY (KNOWLE WEST): THE STRENGTH AND FRAGILITY OF A COMMUNITY HUB IN RESPONDING TO CHANGE

In August 2009, a private company, First Bus, removed the 89 bus route, and amalgamated it with the existing 90 service. The 89 and 90 ran on effectively the same route, but one ran clockwise, the other anti-clockwise. When the 89 was taken away, there was no longer a bus service on Leinster Avenue, which meant many elderly or disabled people had considerable difficulty getting to the more central areas of Bristol.

The 36 bus service was still available, but the buses were frequently full and/or difficult to board, which meant residents being left at the bus stop for extended periods, even in inclement weather, while those with walking difficulties remained housebound.

Local resident Lyn Caple, whose mother was directly affected by the removal of the bus remarked: *'Something has to be done.'* Lyn contacted local councillors, but nothing happened. She approached Carolyn Hassan, director of Knowle West Media Centre, and explained the situation.

Carolyn offered KWMC as a meeting place free of charge. To advertise for the meeting, Lyn used word of mouth contact, and posted flyers through shops and houses. She also contacted the local paper, the Evening Post. The local Councillor asked for a senior director from First Bus to attend, but a relatively junior delegate was sent.

Attendance was high, despite torrential rain, and there was a range of motivating stories; a disabled child was distressed by change of routine, and couldn't understand where his familiar bus had gone. An elderly person couldn't get to Bedminster; a woman couldn't get to work by 6am as she used to. One man couldn't visit his wife in hospital.

Nothing happened as a result of the meeting. The council explained that *'it takes time'* while Carolyn Hassan felt *'we need to capture these stories'*, and commissioned an artist, Cluna Donnelly, to record them. Carolyn emphasised that the artist was paid to do this work, and did it *'not just through the goodness of her heart.'*

Lyn tried to contact people at the bus company and the local council but didn't get anywhere. *'Being on your own - they shut their doors on you,'* she said. She approached Carolyn again and they formed a committee.

At the first meeting there were about a dozen local residents getting to know each other, while at a second meeting, also at KWMC, action plans become more tangible. Through Carolyn, Dawn Primarolo, MP for Bristol South, came to know of the committee and their aims. The committee members began going door to door to publicise the campaign, and Lyn continued to 'check in' with other committee members and contacted Age Concern (now Age UK).

Lyn and Cluna interviewed local people in their homes for short videos that could be shown to the bus company. Dawn Primarolo MP had meetings with First Bus and used these videos as evidence to lobby on behalf of residents. Consequently, the company's managing director met with Lyn at Dawn's office. Lyn presented them with the videos and tried to explain how the loss of the 89 bus was affecting people.

First Bus staff came with Lyn to Knowle West where she showed them around the 90 bus route, taking them to remote parts, furthest from the buses, including a lane that goes to the Health Centre which people are frightened to use, partly because of suspected drug-taking. The company acknowledged the need to better understand the area, and in September 2009 the bus route was reinstated.

Community networks are dynamic — they may shift, degrade, and reconfigure as relationships form, break, mend and wither away.

This example serves to illustrate the value of having a community hub (Knowle West Media Centre) as a neutral and supportive venue, the power of linking capital, in particular the connection between the director of Knowle West Media Centre and a local MP, the role of a shared narrative in bonding people together (a diverse range of vivid stories on why the bus mattered), and the role of leadership (Lyn and Carolyn) and cooperation in a tangible expression of community resilience. The short videos used to lobby the bus company also provide a tangible example of socio-digital capital in action because they gave voice to people who may not otherwise have had one.

In February 2010 First Bus withdrew the bus again because it was only being used by an average of seven passengers, and so far there has been no major appetite to bring it back. Community networks are dynamic - they may shift, degrade, and reconfigure as relationships form, break, mend and wither away. This example serves to illustrate that temporary social networks can be fragile, and need to strengthened, extended and diversified to enhance their social and personal value over time. It remains unclear whether there is more potential energy in the social network that formed around the issue now than there was a year ago. Did the processes that emerged from the removal of the bus create purely instrumental relationships, or was there an enduring shift in the social capital of the area?

We don't yet know, but the most striking aspects of the case study were a) Lyn's remark that *'Being on your own- they shut their doors on you....'* and b) The role of the Knowle West Media Centre in coordinating efforts to bring the bus back. It also did so while simultaneously adding value to its own enterprise by demonstrating the power of participatory art and video to help local residents express their grievance. Given the importance of a hub in fostering resilience in this case, it is worth exploring the issue more generally.

However, given this case study and the outcome in terms of the bus service, we should remember the earlier point that social networks should not necessarily be elevated on the basis of any structural, functional or moral claims to 'rightness' over other forms of social phenomena. They may not necessarily function in enlightened and astute ways, either in terms of their process or in terms of the outcome they ultimately seek.

COMMUNITY CASE STUDY: HUBS, PUBS AND OTHER SOURCES OF RESILIENCE IN NEW CROSS GATE

In figure four in section four, in the left-hand column of red nodes, we saw five pubs (as well as 'Publican' as a public figure) mentioned as being part of people's local networks in New Cross Gate. These individual mentions are in addition to the much more densely connected generic 'Local Pubs' node in the right-hand column. Pubs are therefore a very important place through which community concerns and activities can be communicated.

Pubs perform this function because they are places for socialising – their primary function – but they could perhaps be thought about as spaces to communicate information and messages relevant to the community at large more than they currently are. Moreover, our work gives empirical weight and contextual definition to the recent findings of an IPPR report into pubs as community spaces, particularly on how to measure the social impact of pubs in ways that inform whether reduced business tax rates might be justified.[132]

Secondly, it is worth noting that in addition to pubs a number of community spaces emerge as important connecting hubs in the New Cross Gate network. Some of these are represented visually in figure eight. The spaces that deliver community-oriented activities that are cited comprise: the Barnes Wallis Centre, the All Saints Community Centre, Building Healthier Communities and Green Shoots/Besson Street Community Garden.
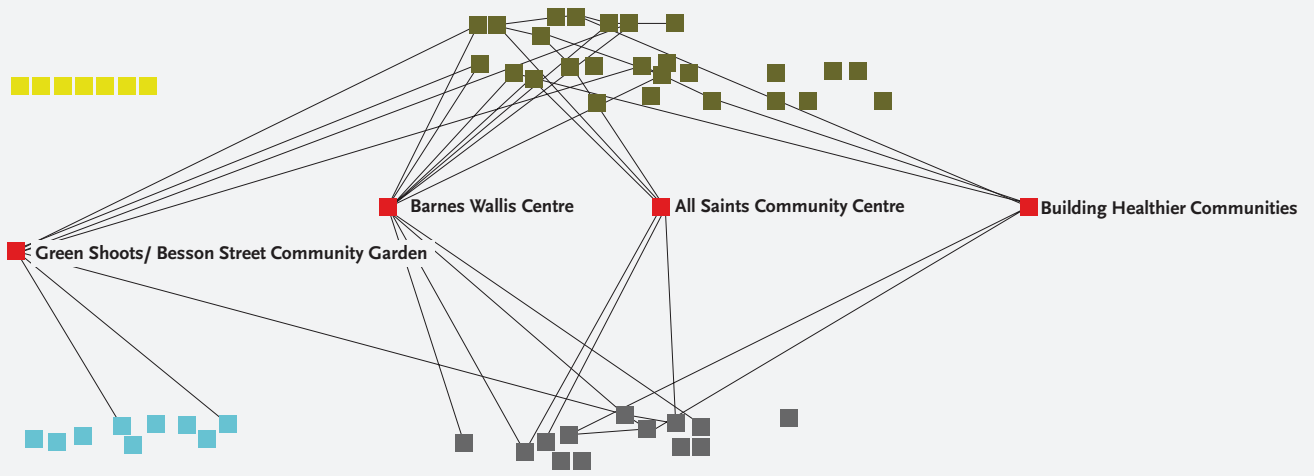
Of these physical centres, two of them – the Barnes Wallis Centre (BWC) and Building Healthier Communities (BHC) – are located within Somerville, while All Saints Community Centre (ASCC) and Green Shoots are located within Hatcham and Kender Triangle respectively. Of the four, BWC, BHC and ASCC are only co-connected by residents from Somerville and Kender Triangle. Green Shoots, meanwhile, co-connects residents from Somerville, Kender Triangle and Musgrove. Notably, none of these centres serves the Winslade residents who now appear as isolated nodes in the network map above (top left).

Of these centres, Green Shoots (and community gardening as an activity) connects across the most diverse range of residents. A practical policy response could be to look to extend the availability of community gardening activities locally as a means to better integrate residents.

The only local community centre to appear in the top twenty nodes according to network 'coreness' is the Barnes Wallis Centre. This finding is intriguing because we would expect one of the larger voluntary and community sector centres (NDC, All Saints or the 170 Community Project) to appear more centrally in the network (given they are more geographically central to the New Cross Gate area) but also because these are the most substantial centres in terms of funding and remit. The Barnes Wallis Centre lies in the heart of the Somerville output area, and when we seek to connect up and foster bridging capital between diverse residents in New Cross Gate, the Barnes Wallis Centre may be the optimum setting for doing so.

The geographical location of centres such as BWC, BHC and ASCC appears to be significant. While they aim to serve the wider community, in practice it would appear that very local residents are much more likely to use these spaces and include them in their networks. This would suggest that even the very local centralisation of services within a locality such as New Cross Gate can be detrimental to residents at the periphery of these areas without thought on how to expand their availability to more dispersed networks. It also suggests that if we want to foster bridging links between micro-scale communities in localities (e.g. between estates) then we need to be creative about how we deliver services and activities in ways that are geographically dispersed and in ways that target the pro-social dispositions of particular individuals rather than the spatial centrality of a given community place. Indeed, pro-social dispositions appear to be an important determinant of network centrality more generally.

Figure 9: New Cross Gate Hubs

Green Shoots/ Besson Street Community Garden

Barnes Wallis Centre

All Saints Community Centre

Building Healthier Communities

COMMUNITY CASE STUDY: NEIGHBOURLINESS AT THE CORE OF A RESILIENT COMMUNITY

As we noted in section three, our network analysis incorporated local people, institutions and dispositions or values that people connected to in the collective network. This allowed us to explore the relative connectedness and centrality of private, public and social assets and to understand how they themselves are networked. From our data in New Cross Gate it appears that those who say they most value neighbourliness are also those to whom most people connect. Our research suggests that people who value neighbourliness are more likely to have diverse social networks. The disposition towards 'helping or being helped by neighbours'[133] emerged as the third most core node in the entire network (see figure ten). The extremely high ranking of this node suggests that the disposition towards behaving in a pro-social way is quite prominent in New Cross Gate.

In terms of the allocation and distribution of resources oriented towards regeneration, this simple conclusion could indicate that resources, for instance social media, should be most effectively directed towards people identified as hubs or meta-networkers, and also at other residents who share the disposition to help or be helped by neighbours. In this respect, some people both value social networking (it is what makes them happy) and are adept at it. There is no reason to believe that this character trait will be less prevalent in deprived communities than anywhere else. However, it may be that many of these people are not in positions where the community as a whole can best capitalise on these skills, and it may also be that some of those in key formal positions of influence are not themselves well-endowed with networking skills. For this reason, we consider a more explicit emphasis on discovering and developing networking skills should become part of community policy.[134]

Figure 11 indicates that residents from Somerville and Telegraph Hill with 31% and 33% of the nodes respectively, constitute the lion's share of respondents reporting this disposition. Somerville appears to have an unduly high proportion, which suggests some 'bridging' potential of this area, stemming from a (coincidental or structured) tendency for residents in this area to have a greater affinity with 'neighbourly' behaviour compared with residents in other areas.

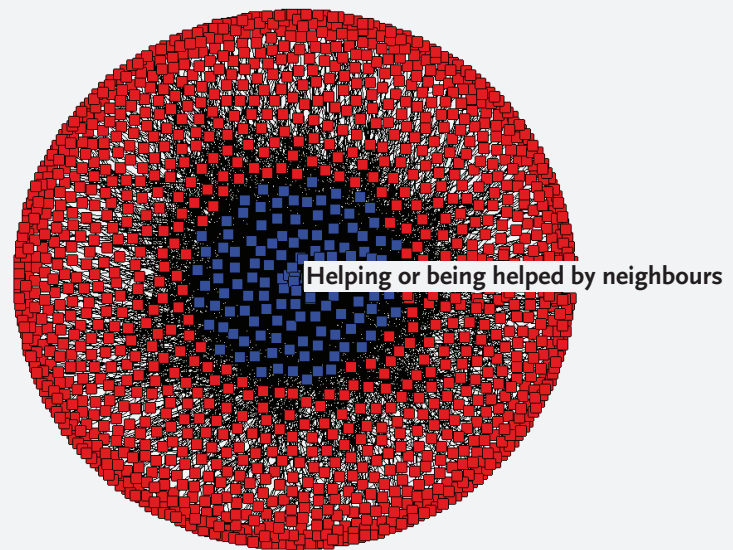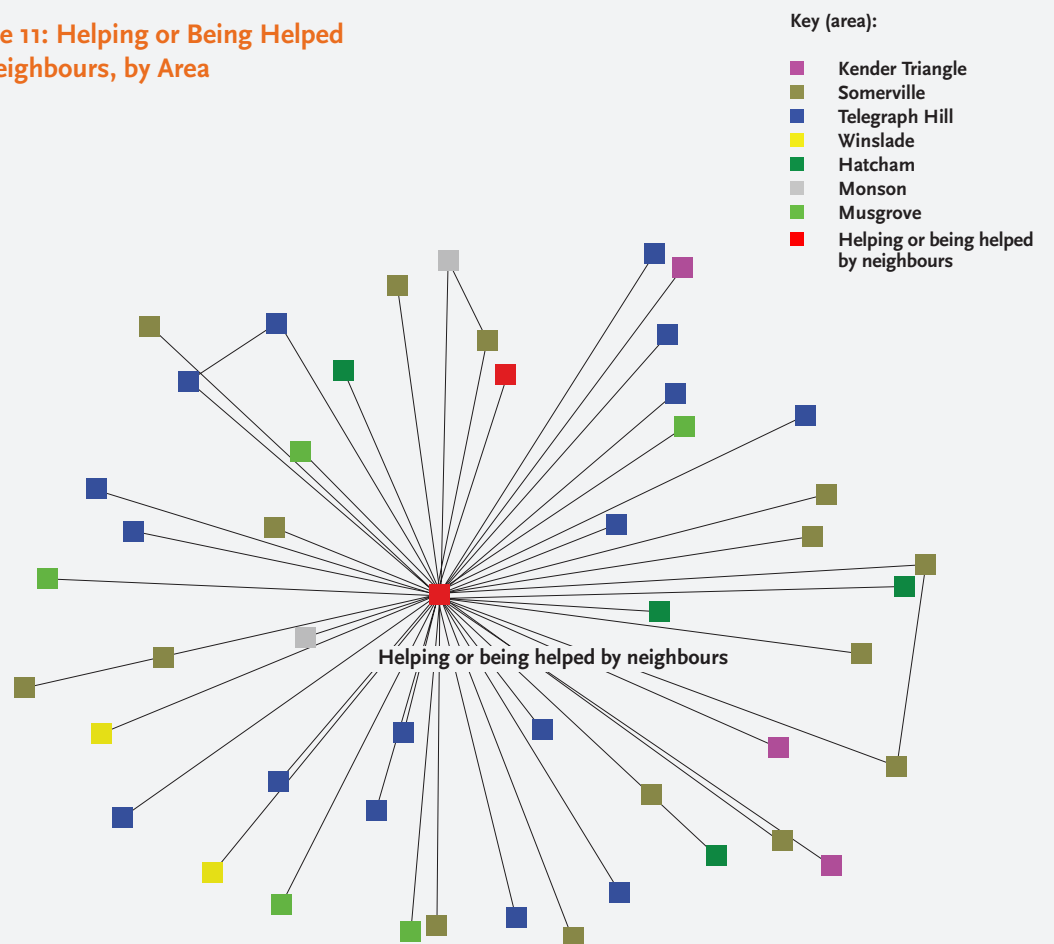**Figure 10 Helping or Being Helped by Neighbours is a Core Node**

Helping or being helped by neighbours

Figure 11: Helping or Being Helped by Neighbours, by Area

Key (area):

- Kender Triangle
- Somerville
- Telegraph Hill
- Winslade
- Hatcham
- Monson
- Musgrove
- Helping or being helped by neighbours

Helping or being helped by neighbours

5.3 EMPOWERED COMMUNITIES: ACCESS, CORENESS AND COORDINATION

We value shaping our circumstances as well as coping with and adapting to them. In this respect, the Department for Communities and Local Government has defined empowerment as: *'the giving of confidence, skills and power to communities to shape and influence what public bodies do for them or with them.'*[135] Empowerment is increasingly being cast in network terms:

'Sustained success in tackling neighbourhood deprivation will depend heavily on an approach which releases the capacity within these communities themselves, which may include seeking to utilise the power of social networks.'[136]

The key elements of community empowerment appear to be:

a) ease of access to power and authority,
b) the nature of the network core in a particular geographic area and
c) the coordination of activity between organisations and citizens.

We will examine each of these in turn.

a) Access to power: inequality of power is network inequality

The 'power' in empowerment refers to the power to shape one's own life in the context of others, rather than the power we have over others. This power has been described as 'the production of intended effects' by Bertrand Russell and 'the opportunity to lead lives they have reason to value,' by Amartya Sen.[137]

Addressing inequality in power is the underlying motivation of much community development. In their research outlined in 'The Power Gap', Demos placed an emphasis on power as personal capability, but community development has traditionally emphasised community empowerment, in which power is viewed as an emergent property arising from access to and influence with and through other people. In this sense power can be viewed as an emergent network property, and in principle comparing social networks could also afford comparative measures of power. As philosopher **Hannah Arendt** stated:

'Power is never the property of an individual; it belongs to a group and remains in existence only so long as the group keeps together. When we say of somebody that he is 'in power', we actually refer to his being empowered by a certain group of people to act in their name.'[138]

Arendt's claim is not the final word on power, but it highlights that social networks and the attendant social capital tend to be taken for granted by those who have them. In this respect, the literature on empowerment makes an important distinction between subjective empowerment (the feeling of efficacy) and actual empowerment (whether you are really changing things). We would argue that those who feel subjectively empowered on the basis of their own efficacy do not realise that their empowerment is likely to be a function, in part, of their social networks.

132 Muir R, 'Pubs and Places. The Social Value of Community Pubs', 2009, IPPR

133 In terms of how this disposition was generated, it was 1 of 15 multiple choice responses to a question about what types of groups and activities the respondent takes part in. Of these 15, 'helping or being helped by neighbours' (which appeared towards the end of the answers offered to the respondent and so should not be subject to questionnaire design bias) was by far the most frequently reported – the next most 'core' node from this question is 'sports team or club' which is ranked the 16th most core node in the whole New Cross Gate network. It is worth noting that those partaking in the pilot survey were not given this multiple choice question and so this node does not appear in any of the networks generated by the pilot data. As such, the 'coreness' of this node would undoubtedly be greater if the 'core-periphery' calculation were applied to the second tranche of survey data only.

134 http://www.matthewtaylorsblog.com/socialbrain/eureka/

135 Communities and Local Government, **'An Action Plan for Community Empowerment: Building on Success'**, October 2007.

136 Communities and Local Government, **'Social Capital and Civic Participation: A Strategic Review of Communities Policy'**, 2009

137 http://www.demos.co.uk/publications/the-power-gap **'The Power Gap'**, Leighton D, 17-12-2009, Demos

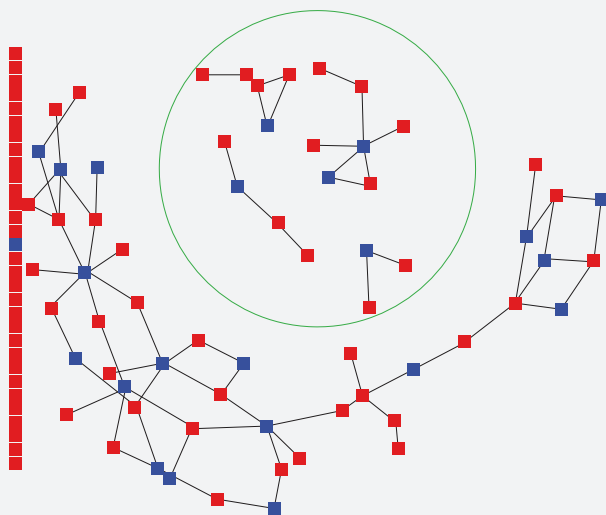138 Arendt H, **On Violence**, 1970, Harcourt, Brace and Jovanovich.

139 Lerner M, **Surplus Powerlessness: The Psychodynamics of Everyday Life and the Psychology of Individual and Social Transformation**, 1998, Hb Publications.

COMMUNITY CASE STUDY: CONNECTION TO POWER IN NEW CROSS GATE

In these terms, community empowerment in New Cross Gate is underdeveloped because many people have very limited access to power:

Figure 12: Connections to Power in New Cross Gate

A quarter of the residents we interviewed feel disempowered. These respondents are the 43 red 'isolates' (unattached nodes) that appear as a column on the left hand side of figure 12 above. Of the 173 respondents included in this particular analysis, 43 (25%) could not name anyone in their social network who they thought was a) good at bringing people together or b) could help them contact someone with influence, power or responsibility to change things locally.

Beyond this picture of isolation, the remainder of the map indicates some clustering of power relationships that display no clear core-periphery pattern. We did identify a small collection of five clusters of twos, threes and fours; these clusters of engagement are found in the top central portion of figure 12 (circled in green). While these clusters suggest some shared linkages to power, their limited size suggests that the potential of these links to engender change is limited.

Even where connections exist, people have to find the confidence to make use of them.

One worker in New Cross Gate highlighted the limited understanding and confidence among residents to complain effectively: *'Richer people, such as people from Telegraph Hill, know how to use the system. People from New Cross Gate try to complain, but don't know how things work, so they get frustrated and don't get the results they need.'*

Residents might get in touch with someone they know who is better connected, such as a resident who is on the Board of the NDC or who is part of a Tenants and Residents Association (TRA), to make their case for them. However, as indicated above, many in New Cross Gate are at least two degrees removed from such a point of contact. There is also a potential cost to the resident who plays the linking role. If they are not able to deliver the results their neighbours seek they can be personally blamed:

So someone comes to the TRA to get help to sort out something practical, like repairing the windows, so I get on to the council and they say they'll sort it out in two weeks. The person comes back to me after two weeks, then months and still nothing. Then he comes back and says – you're useless. The council lets people down, but I'm the baddie, they're not.

This problem is linked to the difficulty in identifying new leaders. Many TRA representatives spoke of how hard it is to find other residents to take over their roles or to develop new ones. Such inertia indicates that to foster empowerment, we may need a deeper understanding of 'surplus powerlessness'. As progressive US Rabbi Michael Lerner terms it: *'Surplus powerlessness refers to the fact that human beings contribute to their existing powerlessness to the extent that their emotional, intellectual and spiritual makeup prevents them from actualising possibilities that do exist.'*[139]

Lerner is clear that such surplus powerlessness is a direct cause of real powerlessness; inequality of power in socio-economic terms creates a vicious circle and becomes compounded by our psycho-social makeup.

In this analysis, the inequality of power goes from bad to worse. We contend that surplus powerlessness is probably related to a person being relatively peripheral in terms of network position. Rather than pathologising the individuals who feel powerless, we should more pro-actively weave the network so that the core, where people are more likely to be objectively empowered, and the periphery, where people are more likely to be subjectively and objectively disempowered, are better connected. To weave the network in this way, we need to better understand the core.

b) The untapped 'power potential' of the core

When we examined connections across New Cross Gate, we found that many NDC initiatives that sought to create connections remain towards the periphery of the network and have not become core to people's sense of agency.

The most important finding in this part of our data is that a significant proportion of core

nodes (blue in figure 13) are made up of individual citizens who are not connected to the public or community/voluntary sector.[140] These include those connected with sports clubs and leisure activities and pubs and cafes, and public servants like postmen and street sweepers, who build local relationships, foster belonging and spread information.

As long as those who seek to address problems in neighbourhoods fail to understand the networks that exist, they miss valuable opportunities to reach and engage citizens. In contrast, many local community organisations and parts of the public sector, such as the key service provision and community regeneration machinery, are clustered together on the core-periphery boundary – slightly more removed and less connected from people's sense of agency. The relationship between the core and periphery is analysed in more depth in figures 14 and 15.

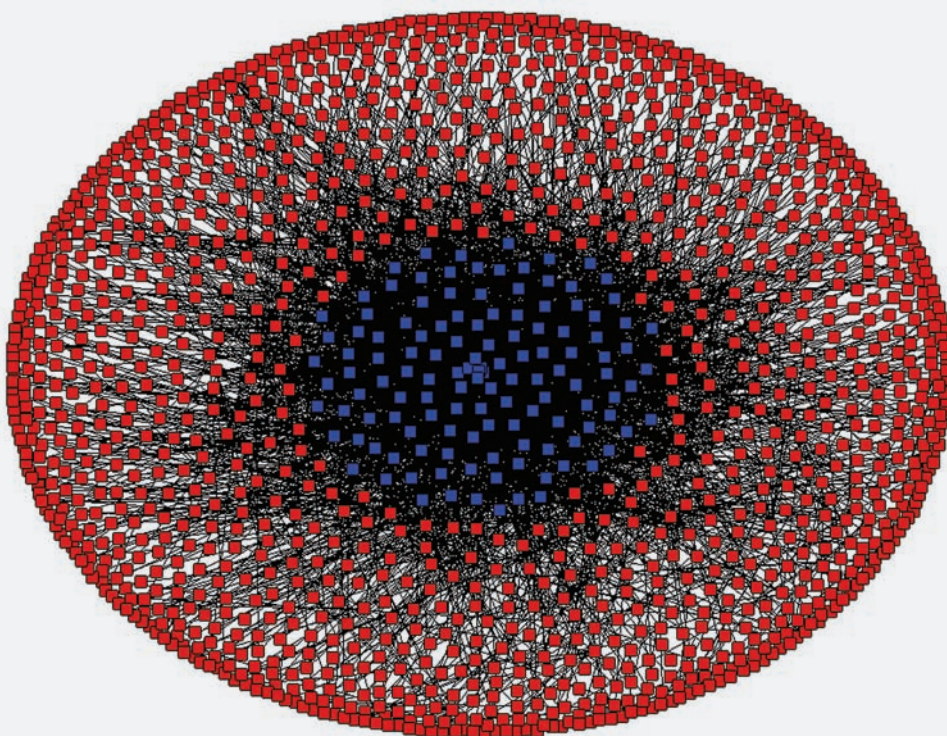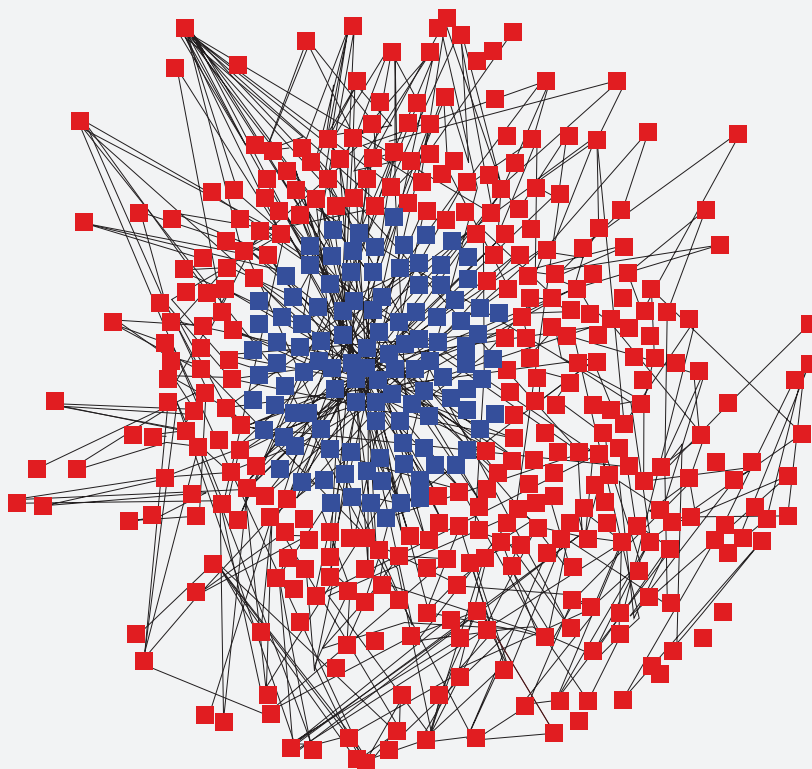**Figure 13: The Core and Periphery in New Cross Gate**

**Figure 14: Core of New Cross Gate
(excluding pendants – nodes with only a single connection)**

COMMUNITY CASE STUDY: WHO AND WHAT IS IN THE CORE IN NEW CROSS GATE?

It is clear that there are many people and organisations in New Cross Gate who are richly connected and who are distributing and accessing information and support. The area now has a densely connected core (see the blue nodes), which according to network developers represents the ideal network structure through which to address community problems and make change.[141] Undoubtedly, the density of the network has been enriched by the NDC programme and long-standing culture of activism in New Cross Gate. But what, or who, is in this core?

Here, the density of connections within the core – the mass of black lines that almost completely fills the space between the core blue nodes – is striking, and we can see that these nodes are hyper-connected in comparison with the peripheral ones. Figure 15 gives a fuller account of the composition of this core

The point here is that the bulk of the core is comprised of individuals rather than organisations, but the nature of their interactions is not clear, which is why we place emphasis on using the network data to inform efforts at coordination.

c) Empowerment through network coordination and leverage

Community experts increasingly recognise the importance of coordinating different organisations, which we argue can only be done effectively when their existing interconnectivity is understood:

Part of the empowerment message is that communities are unified fields in which all issues mingle. But it is also necessary to work from the administrative structures of the different public service silos (departments or agencies that do not join up their work).

Empowerment is best understood as an intervention from a pivotal point between communities and public agencies to facilitate both community strengthening and a more dynamic relationship between public services and their users. The job of empowerment coordination is to find leverage points both within communities and agencies and enable them to work together.[142]
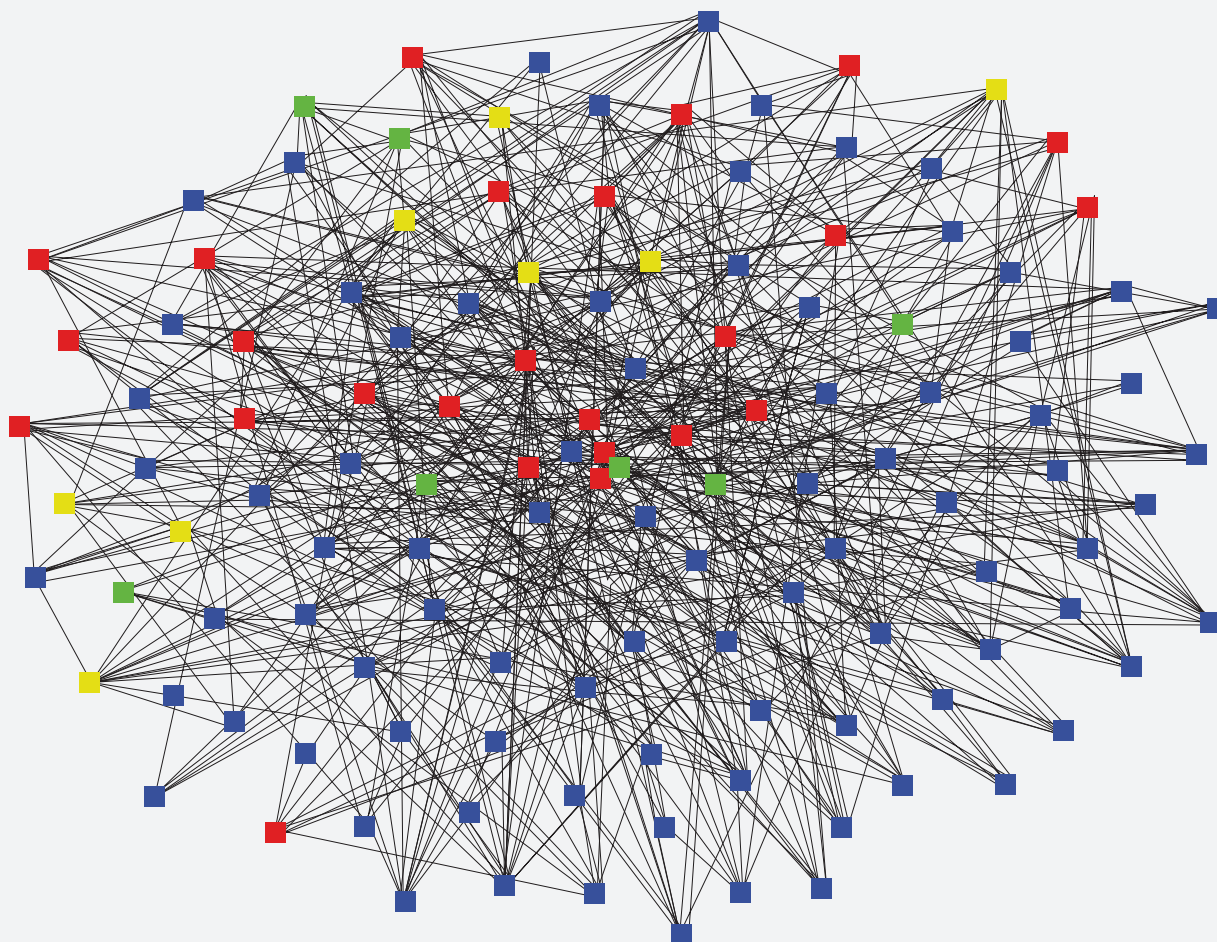
Social network analysis can provide information on such leverage points which can be viewed quite clearly in our network data. For instance, we identified twelve individuals who were mentioned by name four times or more across the surveys. Joan Ruddock, the local MP, was most frequently mentioned, which corroborates anecdotal evidence that she is an active MP with a regular, activist presence in the area. Two local councillors from Telegraph Hill were also mentioned by name, while elsewhere in New Cross Gate, the generic 'local councillor' was mentioned. Arguably this finding corroborates existing evidence that middle classes are better at accessing formal power structures. Other paid or appointed figures in community groups were mentioned, but there were four individuals, including one local pub quiz master, and one local composer, who had no official community positions, but who present a good starting point when looking for the leverage points mentioned above.

Figure 15: New Cross Gate Core Differentiated

Key:
- ■ **Individual** (private)
- ■ **Third sector or community organisation**
- ■ **Public sector organisation**
- ■ **Other** (organisation, group, disposition)

Summary

This section has examined three concepts that appear particularly relevant to communities and policy initiatives in the current climate: support, resilience and empowerment, and made some early steps towards making them work in network terms, as well as highlighting the opportunities for the design of better community development strategies.

- The importance of mapping bridging nodes and organisations was identified as critical for building network structures that offer mutual support and reduce isolation and loneliness.

- The strength and variety of hubs and the propensity for network decay were considered key aspects of resilience.

- Network position, the nature of the network core, and the degree to which local organisations are coordinated appear to be key aspects of empowerment.

Now that we have an account of what a connected community might look like, and the areas (inclusion, resilience and empowerment) where community policy could benefit from applying a network-based approach, we can consider how to they can be shaped and built in practice.

140 The black centre of the core/periphery 'eye' indicates the density of connections at the core.

141 See for example Krebs and Holley, **'Building Smart Communities through Network Weaving'**, http://cfc.barrexternal.org/wp-content/uploads/2008/10/building-smart-communities-through-network-weaving-krebs-holley-2006.pdf

142 'Empowerment Skills for All', PACES.'

SECTION 6: BUILDING CONNECTED COMMUNITIES

If we accept the argument that social networks may be a useful diagnostic and explanatory tool, what can we do with this knowledge? As Crow indicates, networks are just a starting point:

'The diagrammatic representation of a social relationship in terms of line between two nodes in a network is necessarily only the beginning of the social scientific inquiry into the significance of this connection. Researchers have to find out precisely what passes along these lines before pronouncements about the nature of the network can be made.'[143]

In section three we argued that the process of measuring networks and reflecting them back to communities as sociograms was a potentially important and underexplored aspect of community regeneration. We also believe that the research process itself should be a key component of any regeneration strategy. While network structures and functions may be dynamic in certain ways, it is the process of measuring and mapping social networks that has the potential to shape the network in constructive ways, especially when the research is done by local participants.

The key components of any strategy that seeks to build social capital are the effective use of existing social networks, and the shaping of new ones. At a minimum, use of existing networks requires understanding the connectivity of key nodes in that network, while the shaping of new networks requires skills of network weaving (deliberately building relationships and supporting collaborations between people, and between people and organisations) and meta-networking (ensuring that the social, psychological and geographic conditions are suitable for people to build, shape and sustain networks).[144]

It is important to appreciate the pivotal role of the researcher in raising participants' awareness of their connectivity, and thereby directly influencing the way existing connections are used and future connections are formed. The research process itself can be a form of networking and network weaving.

6.1 NETWORK WEAVING

Community consultants Krebs and Holley[145] show how social networks can be used to build social capital. They suggest that weaving a network requires two iterative and continuous steps of knowing the network, for example taking regular snapshots of it to evaluate progress, and weaving the network, which requires following the four phase network knitting process outlined in **figure 16**.

The question is, can we change the value of a street corner in the way we can change the value of shoe polish? And the answer is yes.

— **Kevin Slavin**[147]

143 Crow G, **'Social Networks and Social Exclusion, an overview of the debate, in Phillipson et al (eds) Social Networks and Social Exclusion: Sociological and Policy Perspectives**, 2004, Ashgate.

144 For a more detailed account of meta-networking, see Gilchrist A, **Connectors and Catalysts**, 1998, SCCD News (18)

145 Krebs and Holley 2006, http://www.orgnet.com/BuildingNetworks.pdf

146 Ibid

147 http://www.thersa.org/events/vision/vision-videos/kevin-slavin-playing-the-city

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Krebs and Holley's four-stage process is outlined and illustrated below:

1 **Scattered Fragments** require network weaving to move to the next stage, Hub-Spoke.
2 **Hub-Spoke** means moving from single to multiple network weavers (and hubs and spokes) and moving from network weaving to network facilitation.
3 **Multi-Hub** Small World Network develops weak ties across clusters and strengthens the network; political and 'turf' issues can act as barriers at this stage.
4 **Core-Periphery** is the ideal state, requiring network maintenance and bridges to other networks, while the periphery reaches into new areas and weavers focus on core projects for maximum impact.

The end goal for vibrant, sustainable community networks, the core-periphery model, emerges after many years of network weaving by multiple hubs. While such a growth in connectivity may be natural in healthy communities, network weaving is the key to using social networks to develop social capital. According to Krebs and Holley:

There are two parts to network weaving. One is relationship building, particularly across traditional divides, so that people have access to innovation and important information. The second is learning how to facilitate collaborations for mutual benefit. Collaborations can vary from simple and short term – entrepreneurs purchasing supplies together – to complex and long-term – such as a major policy initiative or creation of a venture fund. This culture of collaboration creates a state of emergence, where the outcome — a healthy community — is more than the sum of the many collaborations. The local interactions create a global outcome that no one could accomplish alone.[146]

Throughout this network weaving process, network maps should guide the way because they reveal what we know about the network and uncover possible next steps for the weaver. What Krebs and Holley do not make explicit is just how difficult measuring social networks can be, and although their linear model is useful, network connections can sever as easily as they form, often due to contentious issues that lead to network divisions.

6.2 CONTESTED SPACES AND 'TURF ISSUES'

The design of social spaces has a direct bearing on the nature of social networks that form, and in New Cross Gate we noticed at least three areas that raised interesting issues in terms of the growth and decay of networks:

1) Putting the adventure back in to the playground

One respondent remarked that local divisions between groups of youths in the area are defined in relation to the Somerville Adventure Playground; there is the 'Somerville side' of the community and the 'Monson side' of the community. This division is arguably evident in the network we uncovered, because no residents from the Monson area north of the Kender Triangle cite the adventure playground as part of their network.
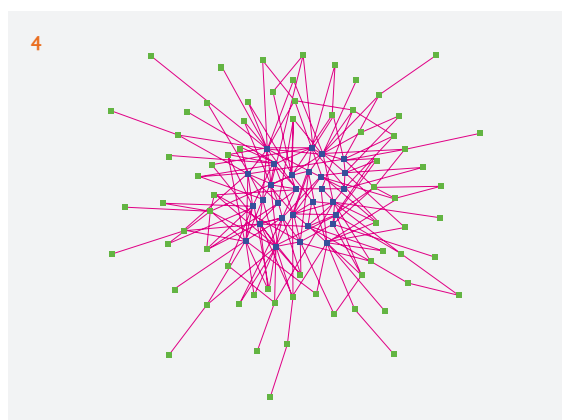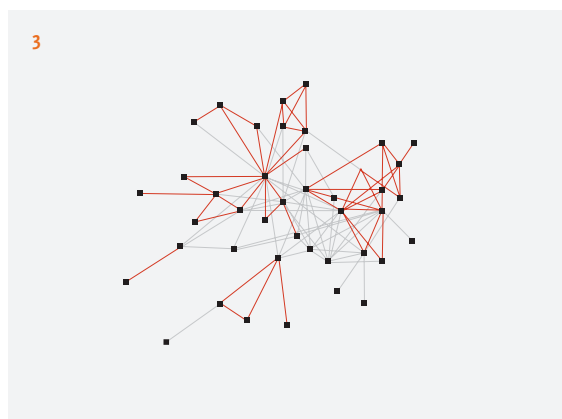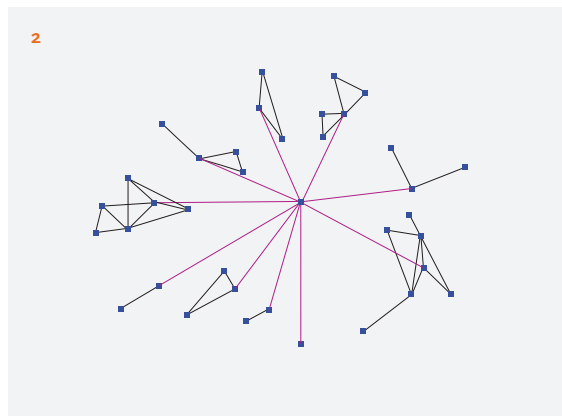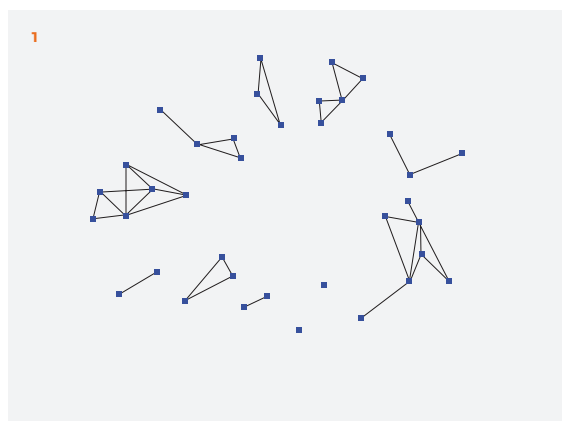
Figure 16: Krebs and Holley on Network Weaving

Somerville Adventure Playground serves to illustrate the point made previously about social goods **(see section 2.1)** because the playground is not currently functioning as a public good due to network effects. A community resource that should serve to bring different parts of the community together has instead become a boundary line, keeping people apart. Younger people have strong feelings that the playground should be a priority for investment, and more generally respondents argue for investing in informal spaces where residents from different parts of New Cross Gate can mix, with provision for younger people felt to be a particular need.

2) 'Trying something new' at Sainsbury's

Sainsbury's is clearly linked to many respondents in the network. This fact is significant, because it raises the potential that Sainsbury's, the only supermarket in New Cross Gate, could act as an important bridge between employed and unemployed clusters in the local network. Linking these groups is important to the development of areas such as New Cross Gate where unemployment levels are high, as Granovetter's work suggests. This might be done not through, say, a formal job fair in the Sainsbury's café, but by building space and opportunity for people from different socio-economic backgrounds to interact regularly and form connections and knowledge of each other. We believe it is precisely efforts to make such links which could have a transformative effect on an area, and that it is an opportunity for the proprietors of such hubs to make them available for this purpose, at least some of the time. In such ways, the private sector becomes a co-participant in the Big Society.

Our network findings also suggest that there should be more community involvement, engagement and say in ongoing Sainsbury's plans to regenerate the local area,[48] and that locating community services within this development could be an effective move, given the network centrality and potential role of Sainsbury's.

3) Post Office possibilities

While conducting our research, further possibilities for encouraging a diverse range of people to meet on a regular basis were discovered. For example, the considerable space outside the New Cross Gate Post Office might be better used to encourage network building, particularly given the site's proximity to transport hubs and the consequently high footfall past the area. Places such as a bench, a fruit market, or a giant public chess board would lead people to linger and talk. However, while the intelligent use of public space has an important role to play, network weaving requires skilled people more than anything else.

...while the intelligent use of public space has an important role to play, network weaving requires skilled people more than anything else.

148   http://www.sainsburys-newcrossgate.co.uk/index.html

149   Chanan G and Miller C, 2010, op cit.

150   Gilchrist A, 2009, op cit.

151   Ibid, Gilchrist also provided references for Switches, Social hubs, Linkers, Weavers, Critical nodes, Community catalysts, and Meta-networkers.

152   Castells, The Internet Galaxy, New York, 1996, Oxford University Press.

153   Gladwell M, The Tipping Point: How Little Things Can make a Big Difference, 2000, Little Brown.

154   Fraser et al, **Tapping into Existing Social Capital – Rich Networks, Poor Connections**, Department for International Development, 2003.

155   Traynor B, Community Building: Limitations and Promise in Defillipis J and Saegert S (eds), **The Community Development Reader**, 2008, Routledge.

156   Dale A and Sparkes J, Protecting Ecosystems: Network Structure and Social Capital Mobilization, **Community Development Journal**, 2008, Vol 43.

157   Creasy et al, **Everybody Needs Good Neighbours? A study of the Link Between Public Participation and Community Cohesion**, Involve, 2008.

158   Gilchrist, A, 2009, op cit.

159   The importance of such people is currently contested. See for instance **Is the Tipping Point Toast?** by Duncan Watts: http://www.fastcompany.com/magazine/122/isthe-tipping-point-toast.html

6.3 COMMUNITY ORGANISERS ARE RELATIONSHIP BUILDERS

The coalition government is committed to increasing the number of active community organisers. It is important that such organisers take a leading role in network weaving and are encouraged and trained to do so. However, as a recent PACES[149] report indicates, the form of funding for such people is absolutely pivotal. Indeed, in New Cross Gate we found that another perceived barrier to effective community networking was the way that funding is structured, what is classed as an outcome, and how these outcomes are measured, with the result that, as one respondent commented, '*connecting people is not measured in the funding we get, maybe there needs to be more scope for things like this.*'

As another worker put it, '*The funders are output-driven, organisations are so busy delivering these outputs that they don't have the capacity for partnership.*' The way that the local organisations perceive and relate to coordinating and funding bodies such as the NDC is important for understanding the context of community development and drawing out lessons for how to move forward. Moreover, one community worker encapsulates a widely expressed viewpoint:

'*Oh, we all jolly along fine, but it could be much better. At the end of the day, people feel like they could be competing for funding. That's the elephant in the room.*'

Several community workers spoke about the strong relationships between a group of well-established community organisations, in comparison with more forced relationships with others organisations they defined as having 'parachuted in' in order to obtain NDC funding.

6.4 NETWORKING IS NOT A FOUR-LETTER WORD

'Networking' appears to have been taken from North American soil and transplanted, uncomfortably, into British parlance, without any supporting context. As a term, it can sound calculating and instrumental to British ears. We need to get beyond this limitation. The key to addressing turf and funding issues is to recognise the value of networking more explicitly, and the crucial importance of meta-networkers and network weavers. As **Alison Gilchrist** indicates:

'*Perhaps the most important, although somewhat tautological, function of networks is their capacity to support networking: enabling people to share ideas, consolidate relationships, exchange goods and services, and co-operate.*' [150]

However, as the Krebs and Holley model suggests, networking requires support and reinforcement, which means recognising the communication channels within communities, especially those that span boundaries and bridge schisms.[151] Such abilities are often embodied in individuals, variously termed Switches[152], Social hubs[153], Linkers[154], Weavers[155], Critical nodes[156], Community catalysts[157], or Meta-networkers[158]. Regardless of the label, what these key people do is put other people's networks together.[159]

We believe this function can be performed by people who are already widely known but do not have community networking as part of their recognised skill set, including postmen, dustmen, lollipop ladies and pub quiz masters. If they are to become effective community organisers, they will need to develop some of the skills indicated by Gilchrist, including affability, integrity, audacity, adaptability, tenacity and the ability 'to make rapid and sophisticated appraisals of complex and dynamic processes from their observations of informal interactions.'[160] Gilchrist adds that:

'Networking is effective for community development because it is personal, involving more than superficial connections devoid of emotional content. Networking is not about exploiting contacts in a manipulative or selfish way, but about establishing levels of trust, goodwill and mutual respect that run deeper than a sporadic and perfunctory exchange of information, business cards or favours. Personal relationships make it easier to make requests and suggestions, especially when these are inconvenient, complicated or hazardous.'[161]

Figure 17: Neighbourliness by Gender (pink nodes are women)

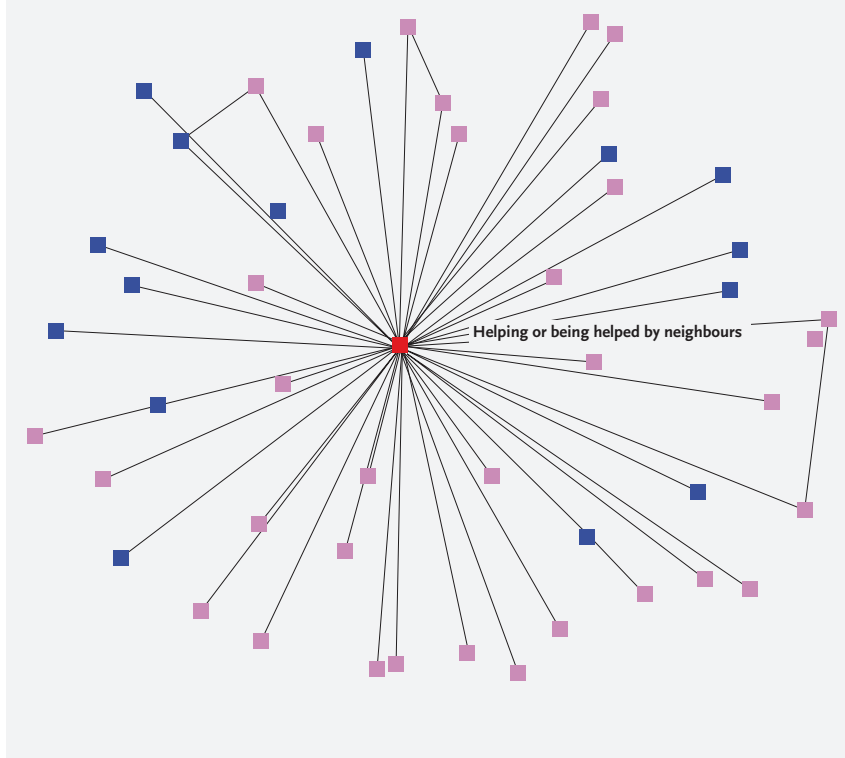Helping or being helped by neighbours

It seems obvious that some will be better at such networking than others, and as Gilchrist argues, networking can be considered a form of expertise:

'Experienced community development workers develop the art... over time and find it invaluable. Intimate knowledge based on networking covers such areas as who gets on with whom, who used to work for which organisation and why the director of one local organisation has the ears of the chair of social services. Gossip is among the most precious information in community work. Such material is too sensitive and too complex to store on a computer...what a competent community development worker carries in her head is a highly sophisticated relational database.'[162]

However, networking has its limitations too. We have to be particularly careful to guard against what journalist **Suzy Dean** has called 'coercive participation' and ensure at all times that we do not use the findings from social network analysis as injunctions to force people to act against their will. Indeed, as **Austin Williams** argues:

'The notion that communities can be orchestrated into existence displays a casual disregard for the very thing that makes them special: communality – a voluntary association of interested parties.'[163]

6.5 WOMEN'S WORK?

Another significant dimension to emerge from our data is gender, given that it is commonly held that in communities women do a lot of the social capital building 'work'.[164] Women are hugely active in weaving together and mediating between their neighbours and communities. **Figure 17** shows that women value neighbourliness much more than men.

This finding corroborates recent research on online networks which showed that more women than men took part in online social networks, and were more active users.[165] On a related point, in our research we found that both women and men generally have similar access to resources (although women appear to have few connections to the media and to people who can hire people from time to time), but access them in different ways. Women are more likely to access resources through their local social connections, whereas men report being more self-reliant, believing themselves to have, or know how to acquire, the capabilities they need to address their own problems. Gilchrist explores another finding regarding gender:

'In many informal networks there often seems to be one individual who keeps in touch with the others, who arranges get-togethers, has up-to-date news and contact details, and generally ensures that everyone stays on more or less good terms. In families this role is often played by women, and there is evidence that women's emotional labour creates and maintains networks within other social settings, such as the workplace or within communities.'[166]

SUMMARY

In section six we have argued that building connected communities seems to benefit from at least three inputs:

• Participative social research

• Networking

• Network weaving

None of these elements have featured in recent discourse about the Big Society, which is why it is important to highlight them now.

160 Gilchrist A, 2009, op cit, p92

161 Ibid, p141

162 Ibid, p62

163 Williams A, 'Who Needs Community Anyway?' In **The Future of Community: Reports of a Death Greatly Exaggerated**. 2008, p7, Pluto Press.

164 See Bruegel I, Social Capital and Feminist Critique, in Franklin J (ed) **Women and Social Capital, Working Paper no 12**, London: South Bank University, 2005; **Dominelli L, Women and Community Action** (2nd edition) 2006, Bristol: The Policy Press.

165 Alemain A, Wartman K, **'Online Social Networking on Campus: Understanding What Matters in Student Culture'**. Dec 2008, Routledge.

166 Gilchrist, A, 2009, op cit, p97.

167 http://livingwithrats.blogspot.com/2010/05/building-big-society-in-big-society-way.html

SECTION 7: CONNECTED COMMUNITIES IN THE BIG SOCIETY

The coalition government's vision of the Big Society is not entirely clear, but according to Prime Minister David Cameron it is based on the premise that 'we can all do more'. In this sense, the Big Society is a political injunction to build a big society (lower case) wherein our social and civic capacity grows to solve problems that were previously addressed by the state. Social capital is the currency of this big society, and social networks hold the reserves of that currency. At the same time, this should not be a reason to withdraw support and funding from deprived areas, particularly those among the most deprived neighbourhoods whose entrenched disadvantage appears particularly acute.

Government advisor Lord Wei analyses the 'ecosystem' of the Big Society in a manner that calls for a deeper understanding of social networks at a community level.[168] For example, one of the key priorities of the Big Society policy agenda is to reconfigure policy design and delivery, which is precisely the promise of a social network approach. Moreover, one of three key objectives of the Big Society is to get people 'more involved' in their communities, in order to 'reduce isolation' and 'create stronger social ties'. These objectives can all be measured in network terms, which is significant because Lord Wei also indicates that there will be greater local discretion to use different approaches of measurement and commissioning.[169]

The growth of social capital will be one of the metrics used to indicate whether society is getting 'bigger' and deciding on the level of geographical analysis to measure progress is also indicated as important. In this respect we believe that urban areas of high population density of roughly a square mile, like New Cross Gate, will lend themselves well to social network analysis because they are big enough to comprise a diverse range of social assets but small enough for the connections of an unbounded sample to be meaningful to participants.

The recent Cabinet Office document, 'Building the Big Society', includes a noteworthy conceptual point that reflects this understanding. The document made reference to '*Society – the families, networks, neighbourhoods and communities that form so much of the fabric of our everyday lives.*'[170] Gabriel Chanan and Colin Miller's recent report: 'The Big Society: How Could it work?' includes the insightful subtitle*: A positive idea at risk from caricature*. Families and neighbours are complex, but they are perceived in broadly positive terms. 'Communities and networks', on the other hand, need to be made more tangible and vivid if 'the Big Society' is going to be made real.

RSA Connected Communities offers a perspective that illustrates why a Big Society cannot be monolithic on a national level, and will be easier to achieve with some people, in some areas, simply because our ability to engage socially and participate civically is directly related to the resources in our social network. Indeed, we believe that if we are not careful about how to build the Big Society, network effects will perpetuate some of the inequalities that civic and political participation are supposed to redress.

168 Lord Wei: 'Building the Big Society', Institute for Government, July 6 2010

169 Ibid

170 See http://www.cabinetoffice.gov.uk/newsroom/news_releases/2010/100518-news-big-society-launch.aspx

171 David Cameron: The Big Society: Hugo Young Lecture: Nov 10 2009.

Social capital is the currency of this big society, and social networks hold the reserves of that currency.

The Big Society, as envisaged by the coalition government, therefore depends upon good social networks, where 'good' is understood to mean links to important sources of information and power, and access to people and institutions that offer skills and resources that are relevant and meaningful to the groups and individuals who seek them out. As we have indicated above, such connections can, at least in principle, be created or woven, and their growth can also be measured, providing a Big Society metric that tells us things about social capital that existing secondary data analysis cannot.

However, to get a feeling for what 'Big' is, we also need to be clear about what 'society' means in terms of network scale. It is easy to slip from talking about 'neighbourhoods', to reminiscing about 'communities', to lamenting the various ills of 'society'. Such terms will always be fuzzily defined and contestable, and at each level of scale we need different kinds of measurement.

At the very least, social network analysis allows us to make the idea of the Big Society more tangible and visual, but we also think that a network approach can inform existing ideas on making the Big Society a programme for government.

7.1 WHY DOES GROUP MEMBERSHIP MATTER?

One of the easiest metrics by which the growth of the Big Society might be measured is group membership, and social network theory validates the importance of group membership. This lies not merely in the activities of the group, but in the fact that most group members will be members of other groups, so joining a group potentially provides access to numerous network bridges that would otherwise not have been available **(see section 4.1, Law 5 on hyperdyadic spread)**.

7.2 DIVERSE NETWORK SHAPES IN THE UK'S 93,000 SQUARE MILES

The existing Big Society Network, led by Lord Wei, has a 'square mile initiative' and seeks to encourage people to make a social contribution to whichever square mile they live in (of which there are 93,000). While there is much to commend in this idea, it is important not to repeat the mistakes that stem from an exclusively geographical emphasis of belonging, as outlined in section 2.2 earlier. However, a useful starting contribution would be to attempt to measure the existing social networks in any given square mile, as we attempted in New Cross Gate.

David Cameron has said that he wants to '*use the state to remake society*'.[171] Our research suggests that the state may have an unconventional role to play in providing support for community researchers, whether in the form of providing a standardised research instrument to make data collection easier, or centrally analysing the data that is collected locally. Such research would not only serve to create practicable knowledge, but is also in itself a form of political participation and collaboration in keeping with Big Society principles.

7.3 THE RELATIVE EFFICIENCY OF STATE AND SOCIETY

One of the premises of the Big Society programme appears to be that, compared to the state, civil society makes relatively efficient use of available resources. In so far as the Big Society is supposed to increase efficiency at a local level, such efficiency depends upon coordinating individuals, groups, third sector organisations and local government, and such coordination is definitely facilitated by understanding how these different stakeholders interact in network terms.

While we do not expect the first wave of the Big Society to involve social network analysis on a national scale, we do think our work makes a case for attempting to reframe the idea of efficient resource allocation as a metric that is informed by social network analysis. For instance, if the government is serious about its intent for every citizen to have some form of group membership, the most efficient way to achieve this is not flyers through doors of unequal importance, or local noticeboards which provide information but do not lend themselves to imitation.

A more promising and efficient approach is to seek to create social contagion, which can usefully be informed by the relative centrality of different parts of the network. For instance, those who are particularly isolated and disengaged are best accessed through whichever people they are connected to, however loosely, rather than by the injunctions of strangers, however well meaning.

7.4 COMMUNITY ORGANISERS

A central pillar of the Big Society programme for government is the intention to create a 'Neighbourhood Army' of 5,000 full time professional community organisers.[172] This idea is very powerful, but the quality of such an army, how it is recruited and trained, deployed and valued, matters as much as the quantity, and like any army it may require some level of stratification to work effectively. In this respect, Chanan and Miller argue:

'What is needed to make the big society work is not simply more community workers or organisers, but a wave of 'super' community development workers with the status and training to be able to mobilise and coordinate a myriad of contributions to citizen empowerment from other voluntary and statutory front-line workers. This means that these individuals will have to be credible community involvement leaders in the eyes of other local workers. They will have to be genuinely experienced and gifted in this complex and demanding field...This is where the transformative potential lies...' [173]

Our research gives some pointers to this transformative potential because the 'super connectors' that Chanan and Miller highlight can be identified through existing patterns of connectivity. More generally, we suggest that such community organisers should be given basic instruction in social network analysis as part of their training, and that the government could have a role in coordinating the analysis of the local data that is collected.

While we do not expect the first wave of the Big Society to involve social network analysis on a national scale, we do think our work makes a case for attempting to reframe the idea of efficient resource allocation as a metric that is informed by social network analysis.

Social network research should not be viewed as a prelude to planned community action, but more as an integral part of the ongoing process of fostering pro-social behaviour. Our contention is that social network research, in and of itself, encourages those who take part to conceive of themselves in network terms, and thereby reflect on their responsibility to use, sustain and develop their networks.

AFTERWORD:

WHAT NEXT FOR CONNECTED COMMUNITIES?

Over the next few months the RSA will be working with community organisations and residents to co-design ideas for social network approaches to community regeneration that require relatively low-cost resources. We will attempt to take a strategic approach. What does a social networks strategy for a community look like, and how does it inform and complement public service delivery? Ideas will be prioritised with local people and we will seek to test them in practice over the coming year. We believe the visualisation of individual and collective social networks is potentially important and we hope to test this assertion in our practical work. In Knowle West we will be continuing to collect, stimulate and analyse data on socio-digital inclusion, and plan to publish a report on the subject later this year.

Following these next phases of work in New Cross Gate and Knowle West, we will seek to integrate the learning from the RSA's Social Brain project[174] with our Connected Communities programme to explore how methods to improve individual behaviour, decision-making and reflection can be networked to amplify their impacts.

The RSA will soon be launching two further programmes under our Connected Communities banner. Firstly, we will be commencing a longitudinal study to test the effectiveness of social network approaches to mental wellbeing and social inclusion. The work will be delivered in seven action research sites in England in partnership with the London School of Economics and the University of Central Lancashire, and a range of local stakeholders. Both New Cross Gate and Knowle West are involved in the programme, and the latter will explore, in particular, the role of online networks. The work is supported by the Big Lottery Research Programme.

Secondly, we will be launching a Social Capital Innovation Network through which those interested in developing social capital and network approaches to social and economic problems can collaborate, share ideas and experiences, access research tools and analysis, and draw on the wider work of the RSA's Connected Communities programme.

For more information, see www.thersa.org/projects/connected-communities or contact Steve Broome, Director of Research at steve.broome@rsa.org.uk.

172 http://www.conservatives.com/News/News_stories/2010/
03/Plans_announced_to_help_build_a_Big_Society.aspx

173 Chanan G and Miller C, Spring 2010, op cit.

174 http://www.thersa.org/projects/social-brain

GLOSSARY

This glossary briefly describes the technical terms used in this report. Often, the terms are contested and our definitions serve only to assist the reader with a general description in each case and to highlight our focus within each term. It is beyond the scope of this glossary to summarise the various positions on each term, although discussion of many of them is contained within the main report.

Efficiency – a contested term and dependent on what we choose to measure. Generally, we mean using the available resources to maximise the production of goods and services (and in our case expanded to empowerment and resilience). Critically, we are including individual and community assets in 'available resources' rather than just the traditional economic inputs (money, staff, time, for example). In the networks explored in this research, a network would be efficient (in a traditional sense) if we can't increase empowerment and resilience without increasing our inputs; and if we are achieving empowerment and resilience at the lowest possible unit cost. In short, we can do nothing more without increasing the available resources.

Ego-centric network – the network of one individual node (such as a person or organisation) in the centre; a personal network. Compare with a socio-centric network, which is a whole group or complete network. See http://www.analytictech.com/e-net/PDWHandout.pdf

Emergence – a continually developing, self-organising property. 'The arising of novel and coherent structures, patterns and properties during the process of self-organization in complex systems' – Goldstein J, Emergence as a Construct: History and Issues, 1999, **Emergence: Complexity and Organization** Vol 1, p49–72

Homophily – when connections between similar people are more common than among dissimilar people. See McPherson M et al, 'Birds of a Feather: Homophily in Social Networks', 2001, **Annual Review of Sociology**, August 2001, Vol. 27, p415-444

Hyperdyadic spread – the tendency of effects to spread from person to person to person (outside a person's direct social ties). See Christakis N and Fowler J, **Connected: The Amazing Power of Social Networks and How they Shape Our Lives**, 2009, Harper Collins

Methodological relationism – a perspective in which relationships are the principal units of social analysis. The way people are connected is considered to be more fundamental than individual psychologies (methodological individualism) or social structures (methodological holism). Social networks and individual psychologies are understood to be mutually reinforcing, such that both have to be examined to give a meaningful account of either individual behaviour or social phenomena.

Multiply-deprived – a term which follows from the way the statistics on deprivation have been thought about, collated and described. Deprivation has recently been understood on multiple dimensions covering a range of indicators on economic, social and housing issues. Scores on these indicators are weighted and combined into a single score – the Index of Multiple Deprivation – which allows areas to be compared according to their level of deprivation.

Network centrality – describes the structural position of nodes in the network (i.e. where people/organisations are located in a network map). It is not an attribute of those people/organisations themselves like income or the ability to use the internet. Centrality describes the potential importance, influence, prominence of a person/organisation in a network and refers to the extent to which a network revolves around a single node. For example, a network map that looks like a star (with one central point and spokes coming off it) means that the central point has complete centrality, and all others have minimum centrality. See http://www.analytictech.com/networks/centrali.htm

Node – a person or organisation in a social network or on a social network map.

Pro-social behaviour – behaviour that seeks to contribute to social welfare. In contrast to anti-social behaviour when social norms are violated, and a-social behaviour when social norms are accepted permissively, pro-social behaviour seeks to actively shape social norms for the greater good, for instance through volunteering, local participation or environmental campaigning.

Public good – '..(goods) which all enjoy in common in the sense that each individual's consumption of such a good leads to no subtractions from any other individual's consumption of that good...' – Samuelson P, The Pure Theory of Public Expenditure, **Review of Economics and Statistics**, MIT Press, 1954, Vol 36 (4), p387–389.

Reflexivity – self- examination that affects the person/community doing the examination. It describes the development of the capacity of a person/community to recognise forces of socialization and change the social network as a result.

Social capital – a contested term. Robert Putnam offers the following minimal definition: 'social connections and the attendant norms and trust'.

Social contract – broadly, a social contract is a means through which citizens cede power to an authority in order to have social order, the rule of law, and quality services.

Social network – a social structure made up of 'nodes' (people/organisations) connected by one or more specific types of relationship. Christakis and Fowler describe a social network as consisting of all the connections and ties within a group or collection of groups. See Christakis N and Fowler J, **Connected: The Amazing Power of Social Networks and How they Shape Our Lives**, 2009, Harper Collins

Socio-digital capital – if social capital is 'social connections and the attendant norms and trust' (see above) then socio-digital capital is 'social and digital connections and the attendant norms and trust'. We use this expanded term because social exclusion seems to work in tandem with digital exclusion, reinforcing and entrenching each other, and those who do not use ICTs (Information and Communication Technologies) tend to suffer other forms of disadvantage. See 'The Social Value of Digital Networks in Deprived Communities', by William Davies, RSA (forthcoming).

Social good – community assets that are publicly available but scarce and contested, and often appropriated by one group to the exclusion of others.

Super output areas – small geographical areas defined by the Office for National Statistics and designed so that small area statistics can be collected and published. Analysis of data by SOA allows for improved comparisons across the country as SOAs are more similar in population size than, for example, electoral wards, and have stable boundaries. The New Cross Gate NDC area is made up of five SOAs, each of which has 1,500-2,000 residents. See http://www.neighbourhood.statistics.gov.uk/dissemination/Info.do?page=aboutneighbourhood/geography/superoutputareas/soa-intro.htm

Trust – A reliance on the integrity of a person/organisation; something committed to the care of another person/organisation; and the condition and resulting obligation of having confidence placed in another person/organisation. In citizenship/place surveys, questions around trust are asked straightforwardly: 'how much do you trust the local council/the police/neighbours?' The measurement of trust should be further explored. We also need to deepen our understanding of what trust means in terms of consequent behaviour and action.

APPENDIX: RESEARCH QUESTIONNAIRE

Hello, I am doing some work for the Royal Society of Arts Community Research Programme. This questionnaire is for a project that looks at how people connect with others in and outside New Cross Gate as part of their daily lives. The findings of the project will be used as the basis for a strategy designed to improve community relations in the area. In the questions I will ask you full names of people and organisations that you know so that we can produce maps of these connections [SHOW RESPONDENT EXAMPLE MAP].

The information you provide about yourself will be kept confidential and will not be shared with anyone outside the project. We will ask you for names of people and organisations that you know, but no information you give will be used in a way that can identify you or anybody else you mention in this survey. When we come to produce our findings all of the names that you give us will be coded so as to keep this information confidential.

Interview details

Interview date _____

Interviewer name _____

Respondent name _____

Street name (if applicable) _____

House/flat no. (if applicable) _____

Section A: people you know well

	Put name, value or tick in relevant box, as per example	Name 1	Name 2	Name 3	Name 4	Name 5	Name 6
eg.	Example question Who do you like to meet with for a chat? (Please list up to a maximum of six names)	John Smith	Jane Smith	John Jones	Jane Jones	Joe Bloggs	Julie Williams
eg.	Example question On a scale of 1 to 5, how valuable are each of the people to you, where 5 is very valuable and 1 is not particularly valuable?	3	4	2	5	5	1
eg.	Example question Which of the people you mention lives in your local area?	✓		✓	✓	✓	
Q1	Apart from your family, who are the people you most enjoy socialising or spending time with? (Please list up to a maximum of six names)						
	On a scale of 1 to 5, how valuable are each of the people to you, where 5 is very valuable and 1 is not particularly valuable?						
	Which of the people you mention live in your local area?						
	Any additional comments						
Q2.	Who are the people that you seek out for advice or to discuss matters important to you? (Please list up to a maximum of six names)						
	On a scale of 1 to 5, how valuable are each of the people to you, where 5 is very valuable and 1 is not particularly valuable?						
	Which of the people you mention live in your local area?						
	Any additional comments						
Q3.	Imagine that there was an outbreak of illness, for example swine flu. In such a situation who would you call upon (from outside of your immediate family) for favours if you fell ill? (Please list up to a maximum of six names)						
	On a scale of 1 to 5, how valuable are each of the people to you, where 5 is very valuable and 1 is not particularly valuable?						
	Which of the people you mention live in your local area?						
	Any additional comments						

		Name 1	Name 2	Name 3	Name 4	Name 5	Name 6
Q4.	**Who could you trust enough to give a spare set of keys to your home? (Please list up to a maximum of six names)**						
	On a scale of 1 to 5, how valuable are each of the people to you, where 5 is very valuable and 1 is not particularly valuable?						
	Which of the people you mention live in your local area?						
	Any additional comments						

Section B: people you don't know so well

		Name 1	Name 2	Name 3	Name 4	Name 5	Name 6
Q5.	**Who are the people you know who seem to be good at bringing other people together? (Please list up to a maximum of six names)**						
	On a scale of 1 to 5, how valuable are each of the people to you, where 5 is very valuable and 1 is not particularly valuable?						
	Which of the people you mention live in your local area?						
	Any additional comments						
Q6.	**Considering the people that you mention in the last question, who could these people introduce you to that it might be useful for you to know? (Please list up to a maximum of six names)**						
	On a scale of 1 to 5, how valuable are each of the people to you, where 5 is very valuable and 1 is not particularly valuable?						
	Which of the people you mention live in your local area?						
	Any additional comments						
Q7.	**Who do you know that could help you to contact another person with influence, power or responsibility to change things locally? (Please list up to a maximum of six names)**						
	On a scale of 1 to 5, how valuable are each of the people to you, where 5 is very valuable and 1 is not particularly valuable?						
	Which of the people you mention live in your local area?						
	Any additional comments						
Q8.	**[GIVE SHOWCARD 1 TO RESPONDENT] From this list of people, please tell me who in your local neighbourhood do you see quite regularly and say hello to, but rarely speak to at any length? Please tell me the number given on the showcard corresponding to each person. (Circle as appropriate)**	1 Value: 7 Value:	2 Value: 8 Value:	3 Value: 9 Value:	4 Value: 10 Value:	5 Value: 11 Value:	6 Value: 12 Value:
	On a scale of 1 to 5, how valuable are each of these people to you, where 5 is very valuable and 1 is not particularly valuable? (Please mark relationship value in appropriate box)	13 Value:	14 Value:	15 Value:			
	Any additional comments						

Section C: places, groups, activities and organisations

		Name 1	Name 2	Name 3	Name 4	Name 5	Name 6
Q9.	**[GIVE SHOWCARD 2 TO RESPONDENT] Using this list, please tell me what types of groups and activities you take part in. Please tell me the number on the showcard corresponding to each group/activity. (Circle as appropriate)**	1 Value: Local	2 Value: Local	3 Value: Local	4 Value: Local	5 Value: Local	6 Value: Local
	On a scale of 1 to 5, how valuable are each of these groups or activities to you, where 5 is very valuable and 1 is not particularly valuable?	7 Value: Local	8 Value: Local	9 Value: Local	10 Value: Local	11 Value: Local	12 Value: Local
	Which of the groups or activities you mention are local? (Delete as appropriate)	13 Value: Local	14 Value: Local	15 Value: Local			
	Any additional comments						
Q10.	**If you wanted to meet new people who share your concerns or hopes for your neighbourhood, where would you go? (Please list up to a maximum of six places - SPECIFIC NAMES OF PLACES REQUIRED)**						
	And on a scale of 1 to 5, how valuable has each of these places been to you recently, where 5 is very valuable and 1 is not particularly valuable?						
	Which of the places you mention are located in your local area?						
	Any additional comments						
Q11.	**Where do you go or who do you speak to in order to find out what's going on in your local area? (Please list up to a maximum of six places or names)**						
	And on a scale of 1 to 5, how valuable is each of these places or people to you, where 5 is very valuable and 1 is not particularly valuable?						
	Which of the places or people you mention live in, or are located in, your local area?						
	Any additional comments						
Q12.	**[GIVE SHOWCARD 3 TO RESPONDENT] Do you visit or use, or have you considered visiting or using, any of the local organisations or centres in your local area listed on showcard 3? Please tell me the number given on the showcard corresponding to each organisation or centre. (Circle as appropriate)**	1 Value: 7 Value:	2 Value: 8 Value:	3 Value: 9 Value:	4 Value: 10 Value:	5 Value: 11 Value:	6 Value: 12 Value:
	On a scale of 1 to 5, how valuable are each of these organisations or centres to you, where 5 is very valuable and 1 is not particularly valuable? (Please mark relationship value in appropriate box)	13 Value: 19 Value:	14 Value: 20 Value:	15 Value: 21 Value:	16 Value:	17 Value:	18 Value:
	Any additional comments						

Section D: resources and skills available to you

I am going to hand you a list of skills and resources that someone you know, or you yourself, may have. I would like to know if any members of your family or friends have these skills or resources? And are there any less well-known acquaintances of yours that have these skills or resources? By acquaintance, I mean somebody that you would have a conversation with on the street if you bumped into them and whose first name you know. I would also like to know if you have these skills or resources yourself.

Please hand Showcard 4 to the respondent. Begin by asking (i.) whether the respondent has a family member with the respective skill or resource. If 'YES,' move on to ask (ii.) if the respondent themselves has the skill or resource. If 'NO,' ask them about friends. Only if the answer is 'NO' again, ask if they have an acquaintance with the resources or skills. Please note, if the respondent tells you that somebody is both a family member and a friend then the person mentioned should be counted as a family member.

Section D: continued

	Do you know a family member / friend / acquaintance who... ⟶	No	Family member	Friend	Acquaintance	...yourself
i						
ii	...and are you someone who... ⟶					
1	...can repair a bike, car or household appliance?	[0]	[1]	[2]	[3]	[4]
2	...can speak and write in a foreign language?	[0]	[1]	[2]	[3]	[4]
3	...can use the internet?	[0]	[1]	[2]	[3]	[4]
4	...has been to university?	[0]	[1]	[2]	[3]	[4]
5	...works at the local council?	[0]	[1]	[2]	[3]	[4]
6	...is sometimes in a position to be able to hire people?	[0]	[1]	[2]	[3]	[4]
7	...has good contacts with a newspaper, or with a TV or radio station?	[0]	[1]	[2]	[3]	[4]
8	...knows about football?	[0]	[1]	[2]	[3]	[4]
9	...has knowledge about financial matters (like taxes, benefits or borrowing money)?	[0]	[1]	[2]	[3]	[4]

Section E: more details about yourself

E1 Postcode _____

E2 Age group (circle number of years)   16-18   18-24   25-34   35-44   55-64   65-74   75+

E3 Gender (circle one option)   Male   Female

E4 Ethnicity (circle one option)

White British	Black or Black British Caribbean	Mixed
White Irish	Black or Black British African	Other
White Other	Asian or Asian British Indian	Declined
Chinese	Asian or Asian British Pakistani	

E5 Family/household status (tick one option)

Married or living with partner, *no* dependent children ☐
Married or living with partner, *with* dependent children ☐
Single parent family ☐
Single person household ☐
Other multi-person household ☐

E6 Length of time living in **New Cross Gate** (circle number of years)   +1   2-3   4-5   6-10   10+

E7 Employment status (tick one box)

Full-time paid work ☐	Voluntary work ☐
Part-time paid work ☐	Unemployed ☐
Full-time education/training ☐	Other ☐
Part-time education/training ☐	

E8 Housing status (tick one box)

Council tenant ☐	Sheltered housing ☐
Private renter ☐	No fixed address ☐
Home-owner ☐	Other ☐
Hostel ☐	

Section F: can we contact you to follow up?

F1 Can we get in touch with you for a one-to-one interview?   Yes   No

F2 Would you like to hear about the results of this study?   Yes   No

If yes to either/both, how can we reach you?

Phone number _____   Email _____

RSA