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The link between ‘giving’ behaviours and a healthy social environment

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The link between 'giving' behaviours and a healthy social environment

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Declaration:

I confirm that this is my own work and the use of all material from other sources has been properly and fully acknowledged.

Abstract

This thesis explores the role of prosocial considerations in society. It suggests that a willingness to take other persons into consideration in one's resource allocation decisions is an essential element of social cohesion which, in the civic sector, is manifest in giving. An inclination to give is influenced by one's wider social environment (norms, pressures and incentives) and also by one's own values and attitudes, which sometimes motivate a person to act for the good or bad of others independently of her social environment. The combination of these factors drives prosocial behaviours like giving to positively impact the wider social environment and the prosocial inclinations of others. The altered social environment then feeds back to the prosocial motivation of the individual. This response and counter-response as people interact determines whether social cohesion expands or contracts over time. Giving behaviours then comprise one, easy-to-measure flow from a highly complex social stock. By monitoring giving behaviours we gain insight into civic sector pro-sociality and the way that the civic sector is contributing to social cohesion.

Civic sector cohesion is valuable, and thus I find that giving is associated with a host of better welfare outcomes: improved life-satisfaction, improved trust, improved incomes, improved neighbourhood ratings, improved sense of security and reduced crime and deprivation: In some ways, giving interacts with these factors on a scale comparable to the big social drivers like education, health and wealth, and predicts welfare outcomes better than incomes can. I find that giving within one's close social circle and giving outside of it both have their own significance.

By monitoring giving behaviours then, governments and development agents gain insight into a community's social strengths and weaknesses, and the way that their interventions are influencing these vital attributes. This provides them with a basis for policy evaluation and adjustment.

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Preface

Ask people what matters in life and almost certainly, somewhere along the line, they will mention their relationships with other people. How we treat others and get treated ourselves has an unavoidable impact on quality-of-life and personally, we feel better and our achievements are greater when living in harmony with others. The big advantages of harmonious relationships have brought this factor to the attention of policy makers, but here we run into problems. How can we account for this social or relational component in the whole 'quality of life' mix? What is 'social cohesion'? How much of it do we have… or even need? And how exactly can a fragmented community become more cohesive? These are the issues driving this investigation.

The key to the investigation comprises an attempt to *measure* the quality of informal relationships between people, simply because measurement improves our understanding of the subject. The more precisely we can measure relational health, the more certain we can be about whether a particular behaviour or policy intervention affects it positively or negatively; thus measurement helps to focus our attention on things that matter. A measure helps us towards a tangible definition, an understanding of cause and effect, and will perhaps enlighten efforts towards social enrichment.

To obtain this measure I approach the question of civic sector relationships from the viewpoint of measurable resource flows. I want to see if the quality of inter-personal relationships can be discerned from the resources that people chose to allocate to or with others instead of spending on themselves. If an individual gives their own time and money away in the interests of another person, it could be an indicator of a positive connection between those persons (since maintaining any connection requires time, and often money also). I can also measure the importance of those positive connections by examining the interaction between giving behaviours and quality of life.

Parts 1 and 2 of this thesis each begin with an overview of its individual chapters and their findings. But briefly, Part 1 provides the context of the literature. It outlines why we should be concerned with inter-personal relationships. Then it introduces the concept of 'social capital' and the attempts already made under this title to measure and understand relationships. And then it connects the social capital literature to the giving literature, examining to what extent interpersonal giving appears to be driven by social capital. Following this literature review is the empirical analysis in Part 2, which specifically tests the interaction between the decision of an individual to give, and the state of his or her wider social environment. Finally, Part 3 draws together the emerging conceptual framework by which relationships between people may be understood and measured, and outlines the practical implications of this research.

PART 1:

Literature review
and the new conceptual framework to be tested

Overview Part 1

Chapter 1 introduces why we should pay more attention to interpersonal relationships. It highlights the shortcomings of a materialistic, individualistic society, and describes how we might benefit from a greater focus on relationships between people. I demonstrate that continuously increasing incomes are not related to increases in wellbeing over time, whereas continuous inputs into the quality of interpersonal relationships *do* have a lasting impact on quality of life (Bartolini and Sarracino 2014). One cannot assume that the real benefits will be enough to bring people to change their behaviour however; there can be negative aspects to interpersonal relationships and, having some public good characteristics, there are also issues of free-riding and underinvestment. Furthermore our decision making tends to be based on rough frameworks of thought rather than exact calculation (Thaler and Sunstein 2008), and so the measures and goals we set for our society will therefore influence the way we behave as individuals. For this reason it is important to get our measures of progress right.

Knowing that relationships matter and that there is value in understanding, measuring and targeting them, Chapter 2 goes on to review the literature on this subject, especially the social capital literature. It describes how people living in cohesive relationships are not only happier, but are also better able to collaborate and are consequently more productive and resilient to shock (Halpern 2005; Krishna 2002; Putnam 1993; Coleman 1988). The literature also notes that relationships have both a structural and cognitive component (Krishna and Uphoff 2002). The structural component refers to the state of the wider social environment with its social networks, the social norms and institutions that influence behaviour within those networks, and the relative status of its members. The cognitive component refers to the attitudes and values of a network's individual members. Resource endowments act as an external constraint. The chapter goes on to describe the problems encountered with the concept of social capital and its measurement, problems which have prevented this relational factor from having a great deal of impact on policy choice.

One of the threads this thesis goes on to emphasise from this literature is that relational ties are more than a simple point of contact between people; there is something that makes those points of tangency *connect*, and which also determines whether that connection is for the good or bad of each party. It is this connective, 'cohesive' element that is the particular subject of this thesis. As the literature suggested, it depends partly on the norms and institutions of the wider social environment, with its external pressures and incentives. However it also depends on the attitudes and values of individuals. As will be seen, social norms and individual attitudes are not necessarily the same thing.

There is no single term for this individual attitudinal element or package of elements. The elements have been referred to in the literature on prosocial motivations; solidarity; collaborative capacity;

intrinsic motivation (the motivations that do not depend on personal gain but on our values and on our attitudes towards others); love; empathy; altruism; conditional altruism; inequality aversion; warm glow; other-centred preferences; 'us and our interests' rather than 'me and my interests'... These are not all the same thing, but they are all part of a 'prosocial motivational set,' upon which healthy and cohesive civic sector relations hinge.

The factors that motivate an individual to behave pro-socially and thereby to forward the cause of social cohesion are clearly complex; a range of motivations from altruism to expedience are in play as well as a range of demographic influences specific to the individual. However the argument of this thesis is that the resources that flow from these complex and context specific social drivers may be easier to track than trying to untangle the complexities of the drivers themselves. In understanding the quality of interpersonal relationships through the prism of resource flows I may by-pass some of the measurement complexities that mire down the social capital concept; targeting the flows that arise from specific aspects of that stock instead.

Because I find it useful to view relationships through the prism of resource flows, I define this set of prosocial motivations as a *willingness to consider others in one's resource allocation decisions.* The 'willingness to consider others' pays homage to the prosocial element (whatever its drivers) but 'in one's resource allocation decisions' goes further in that it signifies the expression of this pro-sociality in terms of the way that resources are allocated. The latter feature is important to us because it is measurable.

Clearly there are many forms of resource flow that are specific to social capital in its differing sectors of society, be that the state sector, market sector or civic sector. I choose to focus on the civic sector, since in this sector resource flows are not made under contract, and are therefore particularly dependent on the relational factors and attitudes I am interested in identifying. The resource transfers that are specific to civic sector drivers are giving flows, and so Chapter 3 is devoted to describing the links between giving behaviours and cohesive civic sector relationships.

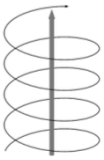
The key finding of Chapter 3 is that prosocial behaviours, represented in the giving of time and money, are driven by (1) the social ties, pressures and characteristics of the wider social environment (structural drivers); and (2) the attitudes and values of the individual (cognitive drivers). These are exactly the factors by which the cohesiveness of relationships between people was defined in Chapter 2, confirming the existence of a link between giving behaviours and civic sector relations. Moreover, the findings lead us to hypothesise that it is the interaction between structural and cognitive drivers which determines whether social cohesion becomes greater or less over time, and that the nature of this interaction may be gauged by giving behaviours. This hypothesis is summarised in the figure below.

Quality of life associated with a cohesive civic sector

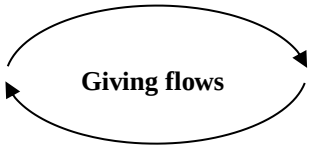
A mutually beneficial and supportive social environment is associated in the literature with improved productivity, resilience and wellbeing

Giving flows arising from cohesive civic sector relationships (measurable)

The time and money people spend on or with others as a personal response to the interests, advantages and pressures associated with human interaction in the civic sector.



Individual prosocial motivations



Social environment (social ties, norms and relative socio-economic status)

The prosocial, cohesive nature of civic sector relations

The degree to which an individual takes others into consideration in their resource allocation decisions. The decision is influenced by the prevailing social environment and also by the individual's values, attitudes and personal response to treatment.

Where people have shown consideration for others in their resource allocation, the social environment changes with its social ties, trust levels, capacity for collaboration, resource distribution and norms. The changes in social treatment that arise from these factors again feed back to the motivation of the individual.

It can be seen that the heart of social cohesion is the interaction between individual motivations and their social environment. When individuals act in another's interests as well as their own, communal trust is built with all its associated benefits. When they act opportunistically, communal trust is destroyed. The individual is partly responsive to the relational environment. However (s)he also has a choice to act for the good or bad of others independently of the social environment (rules and sanctions act as a constraint to behaviour, but cannot cover every eventuality). And so a cycle of treatment, response and counter-response is formed, with trust levels improving or degenerating depending on the nature of that interaction.

The nature of the interaction can be evaluated by monitoring the pattern of resource flows, represented by the central arrows. Where individuals volunteer resources to meet the needs and interests of persons other than themselves, it is an indicator that relationships exist and that those relationships are bringing individuals to act in a prosocial manner. The wider the extent to which that giving circle extends, the wider the reach of networks characterised by prosocial behaviours. The mix of relational networks, social norms and private attitudes that make a person more or less considerate of the interests of another are highly complex, but in terms of aggregate impact, the preferences are revealed in what a person does with real, tangible resources. Thus giving flows act

as a barometer of the prosocial inclination, dependent on a complex social stock and one essential ingredient to social cohesion. Knowing that there are many quality-of-life benefits associated with social cohesion, we may expect to find that communities characterised by giving behaviours will experience more desirable development outcomes.

Such a far-reaching hypothesis is not something that may be conclusively proven in one thesis. However the literature provides some evidence in its favour, and I can also hold it up to survey and experimental data and see if there is any way it is disproven, or any way in which I should modify my understanding to better fit the facts. Part 2 of this thesis therefore goes on to test each part of the model against UK data. It tests whether the social environment and individual attitudes are indeed separate components of influence on giving. It then tests for the existence of an interaction between these two; whether the social environment effects an individual inclination to give, and whether an individual inclination to give effects the social environment. And finally, it tests which giving flows provide us with the best indicator of prosocial motivation. Overall then, we get a picture of how prosocial motivation within the civic sector, measurable in giving flows, impacts quality of life.

Finally, Part 3 of this thesis draws all my findings together, and describes some of their implications. I have asserted that pro-sociality (people acting with consideration for one another) is measurable within the civic sector by giving behaviours, and is a contributing factor to a healthy and cohesive relational environment. I have said that giving behaviours are driven by a range of social factors specific to the individual, many of which are malleable. A case may be made then for identifying and paying attention to the social drivers that influence prosocial inclination. We can measure our progress in nurturing civic sector relationships through monitoring certain giving flows.

Governments and development organisations can survey giving prior to any intervention in order to better understand the strengths and weaknesses of the civic sector in the communities in which they are operating. Their measures are more likely to succeed where they can tap into pre-existent prosocial relations, and extra controls may need to be put in place where such relations are lacking (Vajja and White 2008; Portes and Landolt 2000). Monitoring how giving behaviours change during and after a programme will reveal the impact of that intervention on civic sector relations, in terms of how that sector is contributing to social cohesion. Not only will this confirm the added value (or not) of a particular programme, but over time, the knowledge gained will affect programme design so as to maximize the protection of community cohesion. Even the focus on ‘giving’ rather than ‘getting’ questions will send signals to the community, affirming those behaviours which enhance collaboration and focussing minds on an issue essential to wellbeing. Thus the giving measure is not only informative, it is also prescriptive.

Chapter 1. **Measures of wellbeing: the need for a prosocial focus**

1.1 Measuring the good life

Income levels are a widely used indicator of quality of life, based on the simple assumption that 'more' is 'better.' In consequence most countries of the world hold the pursuit of economic growth as one of their primary objectives. The world's average-inflation adjusted wealth per head of population is higher today than it has ever been, but along with the riches there is mounting evidence of social and environmental strains; strains which are adding weight to a call for a change of focus. Thus in 2008 for the first time a Western government commissioned an economic development report that was to include not only GDP (production), but also consideration for the distribution of that wealth; a wider set of quality-of-life indicators; and evidence regarding the sustainability of that wellbeing into future generations (Stiglitz *et al*. 2009, commissioned by the French government under President Sarkozy).

The ability of a country to generate wealth was considered an inadequate single measure for several reasons. For one thing it would seem that, over and above a certain standard of living, it takes greater and greater inputs of money to add anything to the enjoyment of life (Easterlin 1974). On the environmental side, this exponentially increasing consumption is unsustainable as resources become depleted (Daly and Farley 2004; Gore 2007; Coyle 2011). On the social side, the way wealth is *distributed* has social impact that aggregated wealth measures cannot capture, with highly unequal distribution putting severe strain on social structures and, where peers are better off, reducing an individual's satisfaction in having 'enough.' (Wilkinson and Pickett 2009; Hirsch 1976; Jackson 2009). Moreover to focus on money appears to crowd out the attention devoted to inter-personal relationships, adding to the social strain (Bartolini *et al*. 2014). In the face of these limitations, the report commissioned by Sarkozy (Stiglitz *et al*. 2009) looks beyond GDP to quality-of-life measures including person-by-person material living standards (income, consumption, and wealth); health; education; personal activities including work; political voice and governance; social connections and relationships; environment (present and future conditions); and insecurity, of an economic as well as a physical nature. The report takes steps to measure each of these objectively, but, ground-breakingly for top economists, it also validates the use of subjective assessments of wellbeing. This is a case of simply asking people how well they are doing, frequently dubbed, 'happiness indicators.' Economists like Layard (2005) and Clark *et al*. (2008) have written extensively to argue that such questions improve our understanding of public wellbeing. Today, data is available regarding these subjective measures of wellbeing for almost every country of the world. See for example the Gallup World Poll or the World Values Survey, which has been asking these questions since their inception in the 1970's/1980's, or the World Happiness Reports first published in 2012.

One frequently used template question is this: *All things considered, how satisfied are you with your life as a whole?* Participants are typically offered response options ordered along a Likert scale such as:

1=very satisfied

2=fairly satisfied

3=neither satisfied nor dissatisfied

4=fairly dissatisfied

5=very dissatisfied

Subjective measures of wellbeing might seem simplistic, and yet the responses to such questions, especially if asked for multiple domains of life such as satisfaction with one's job, one's family, one's home etc., are found to be surprisingly well correlated with more objective indicators of internal wellbeing. These objective measures include the presence of the stress hormone, cortisol, in the blood or the incidence of stress-related disease (Steptoe *et al*. 2005); even the recovery time from illness or wounds (Diener and Biswas-Diener 2008). Subjective measures also correlate to objective measures like exposure to negative living environments (Oswald and Wu 2010) and they correlate to the frequency of a genuine or 'Duchenne' smile (Ekman and Davidson 1990). Thus we have evidence that simply asking people how happy they are reveals some credible information about their individual levels of wellbeing.

In this chapter I examine what these happiness indicators tell us about the state of our socio-economic environment, particularly considering to what extent wealth and/or social factors contribute to quality of life. We need to understand why continually increasing wealth over and above a certain minimum keeps us happy in the short term, but the effects do not appear to last, whilst continuous input into the quality of relationships between people appears to have long-term, lasting effects on quality-of-life (Bartolini and Sarracino 2014). I also consider pitfalls to avoid even in the use of happiness indicators themselves, and why it is so important to get the indicators of welfare right.

1.2 Money and happiness

Firstly I consider the somewhat ambiguous relationship between happiness and wealth. Fig.1.1 plots GDP per capita in a country (average wealth per head of population per year) in relation to the average subjective wellbeing (SWB) of that country.

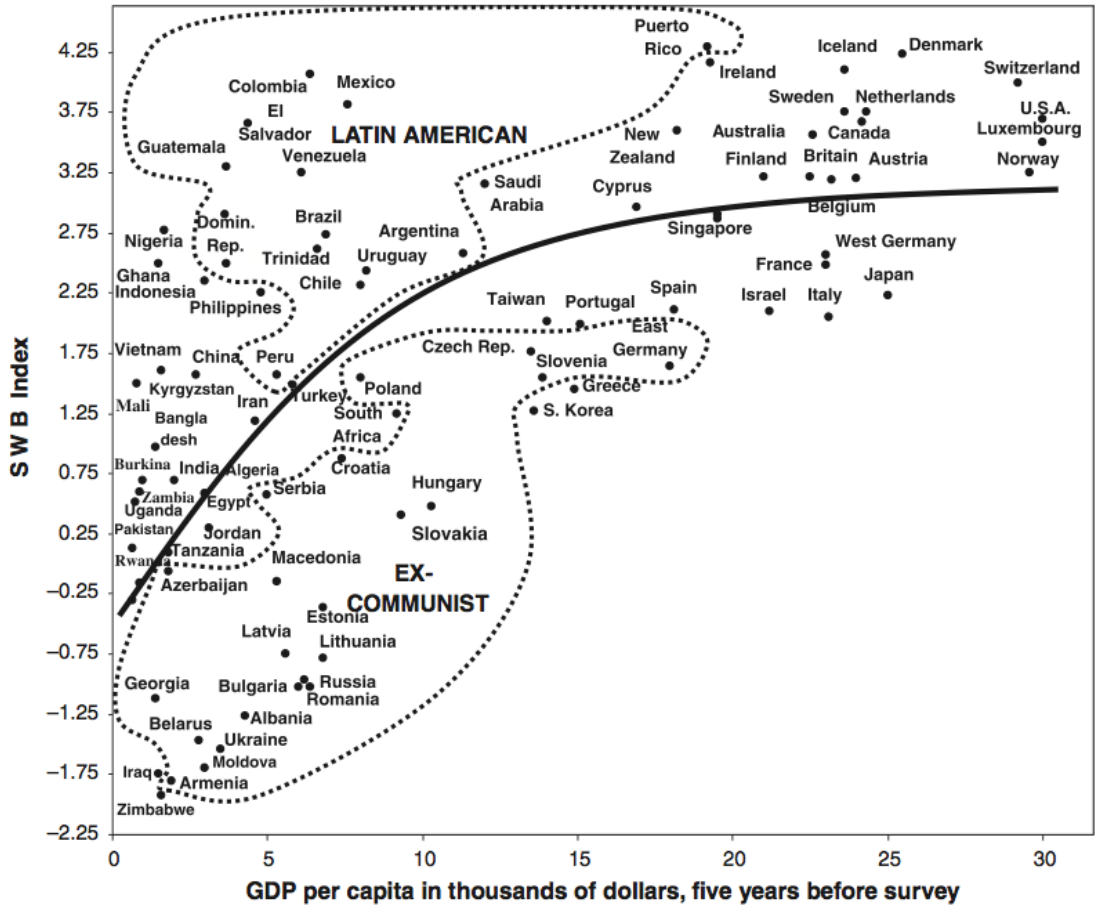


Fig.1.1 The relationship between GDP and Subjective wellbeing (SWB)

Source: Inglehart *et al.* 2008

It can be seen that countries with average wealth exceeding US$15,000/year are consistently happy, whilst those earning less than US$15,000/year may be happier or sadder depending on non-monetary, possibly cultural factors also. Secondly I observe that beyond this US$15,000 per year mark, happiness does not continue to get greater and greater as incomes continue to rise, suggesting that above the bounds of real deprivation, extra income may not be the most important route to increasing happiness. This disparity between growing incomes and happiness has been dubbed the 'Easterlin paradox' following Easterlin's observations in 1974 (Easterlin 1974).

The data is even more striking when we look at happiness over time and by country. Fig.1.2 (happiness and GDP in the US) and Fig.1.3 (happiness and GDP in the UK) show that increasing GDP over the years has had no correlation whatsoever with average happiness.

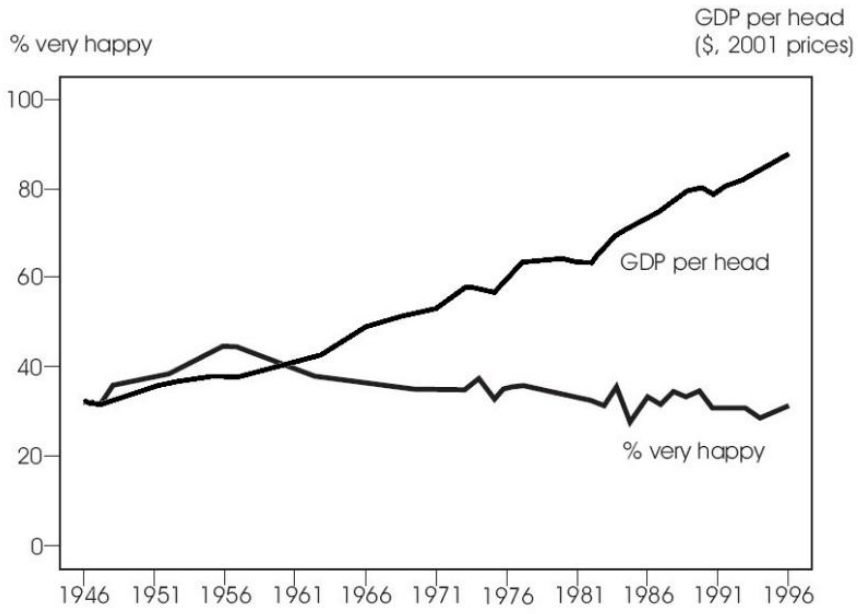


Fig.1.2 The change in US life-satisfaction and the change in GDP, 1946-1996
Source: Layard 2005

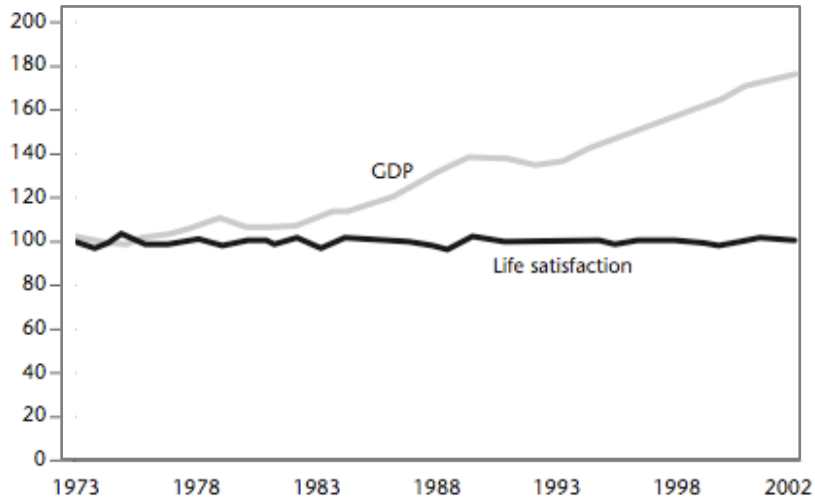


Fig.1.3 An index of the change in UK life-satisfaction and the change in GDP, 1973-2002, where 1973=100. Source: NEF (2004)

Several reasons have been proposed for this lack of correlation between rising incomes and happiness. Brickman *et al* (1978) showed that a jump in income can offer us a short-term happiness boost, but that the feeling does not last. Even lottery winners reported levels of happiness not significantly different from a control group when interviewed between one and 18 months after the event. Suh *et al* (1996) suggest that material stimuli have a tangible impact on happiness for up to about 3 months, beyond which happiness levels no longer reflect any significant change. This is because of adaptation; our expectations quickly adjust to a new financial status, and then we are left feeling no better-off than before… until the next input boost that is, which is to put us onto a

kind of materialistic treadmill. Brickman and Campbell coined the term 'hedonistic treadmill' in 1971, and its existence has been confirmed and reconfirmed in the literature ever since (e.g. Clark *et al*. 2008; Layard 2005; Van Praag and Frijters 1999). Van Praag and Frijters (1999) capture this issue of adaptation to income by asking people of different incomes what level of income they consider to be 'good.' They find that the higher the income people have, the bigger the sum has to be before it is considered 'good.' Layard (2005) reports that since people are not generally aware that they are on a hedonistic treadmill, they overinvest in the accumulation of material goods; they expect that such investments will yield more wellbeing than they actually can.

But there is a further reason why we cannot stop this hedonistic treadmill also: social comparisons. This was referred to as a 'positional treadmill' by Frank in 1985. The idea is that we do not value goods in an absolute sense, but only in relative terms (Helson 1964; Hirsch 1976). In a social setting, this means that material goods only make people happy if their possessions are as good as or better than those of their peers. Since these peers feel the same way, everyone ends up in a status competition. Moreover, those who happen to move up the status ladder have a tendency to change their reference group, so even going up does not relieve the struggle because there is always someone further up still (Frey and Stutzer 2002). An experiment which captures the essence of these 'positional concerns' was run by Solnick and Hemenway (1998): Students were asked whether they would pick a scenario in which their annual income totals $50 thousand in a world whether others earned $25 thousand, or whether they would prefer $100 thousand in a world where others earn $200 thousand. Over half the students preferred the first scenario; they would rather have less purchasing power so long as their income exceeded that of others. The materialistic aspect of this rivalry is revealed in the fact that these positional concerns did not extend to leisure time: people were quite happy to maximise their vacation time even if others had more than themselves.

The more importance people attach to buyable goods (the more materialistic they are), the worse people feel if they do not keep up, and the more intense the status battle becomes. Creeping materialism has been traced in changing answers to questions about how important material considerations are to a person compared to the importance they attach to intrinsic motivations like 'honesty' or 'friendship'. For example, in 1970 a student survey in the US found 39% of its sample agreeing with the statement that 'being very well off financially' was at least a very important goal in life. By 1995 this figure had risen to 74% (Myres and Diener 1997). Monetary status had assumed increasing importance over the years.

Materialism and the rise of social comparisons can also be traced in the degree to which people are satisfied with their financial status. The satisfaction that the average person in the US feels with respect to their income is declining, despite the fact that in absolute terms, wealth is rising (Bartolini *et al*. 2014; Lane 2001). This dissatisfaction is directly related to social comparisons;

people are less happy with what they have got because they are increasingly concerned about the way their incomes compare to what other people might be getting. Stutzer (2004) finds therefore that subjective wellbeing is negatively related to one's level of income aspiration; caring more about getting a high income reduces happiness. Increasing concern for material goods then actually *damages* happiness.

Materialism is continually reinforced by firms anxious to sell their products and continually selling us the importance of material goods. Everyday services are paid for by this advertising which means that we are fed this world-view all the time; we are surrounded by media (Layard 2005). Wealth creation is the domain of capitalism, which focuses our attention on competitive, 'survival of the fittest' type norms and dynamics, validating a norm in which some people rise and others fall in the struggle to get ahead. Time and money is invested into moving up, moving out, detaching from 'lesser' social groups; a process which polarises communities and fuels inequality. Those who succeed, where motivated by money, will use that success as leverage on rule-making and trading institutions so as to capture even more economic gain. Their money and power increases relative to the money and power of others. Analysis of the tendency of a society to polarize as its citizens focus on wealth creation has been analysed by economists from Marx to Piketty (see Callinicos 1983; Piketty 2014).

Wilkinson and Pickett (2009) have studied the social implications of unequal societies. They find that an 'inferior' financial position translates into an 'inferior' social position, and that this sense of inferiority actually alters the way people feel about themselves and the way that they relate to others. Antisocial behaviour patterns follow, such that inequality is associated with a fantastic range of social problems; health related, crime related, and (troubled) family related.

We see then that a monetary focus does not necessarily increase our quality of life. Moreover there is evidence of social strains arising as our focus becomes more materialistic. There is more to say on this in Section 1.4, but first it is helpful to consider in what way social factors matter in the first place. Section 1.3 explores the interaction between social relationships and happiness.

1.3 Social relationships and happiness

Ask people in the UK to select the single most important factor contributing to their happiness and wellbeing, and we find that by far the most popular response has to do with relational connections, especially the family. Money and financial security was far less pressing an issue when it came to happiness, at least in the UK which is a comparatively wealthy country of the world (Fig.1.4).

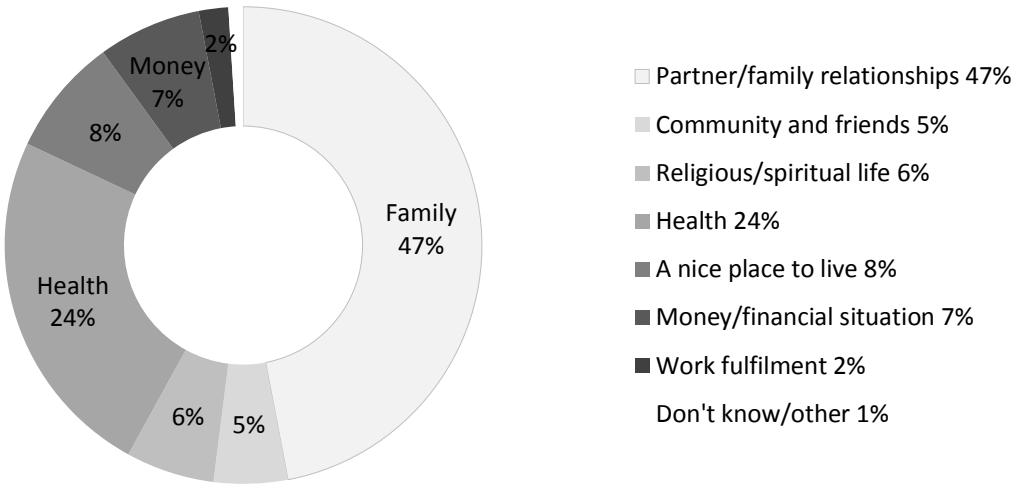


Fig.1.4 Factors influencing subjective wellbeing/happiness

Source: Jackson 2009 based on a poll of 1001 respondents from all over the UK (BBC 2005)

We found similar results in our own small study of philanthropists in Berkshire (Zischka in collaboration with Berkshire Community Foundation 2014). 120 local people connected in some way to Berkshire Community Foundation were asked to report how well their community was doing in various domains and also about their giving patterns and wellbeing. The perceptiveness of the respondents was reflected in the fact that the gravity with which they regarded the problems of their council area corresponded very closely to the official index of multiple deprivation for each area. These respondents were then requested to suggest ideas for addressing the problems. Their ideas were unprompted – people filled in a blank box. A detailed summary of responses is found in the online report (Zischka in collaboration with BCF 2014), but the strongest, reoccurring themes running through the suggested solutions to community problems concerned values, neighbourliness, and individuals thinking not only about their own interests and impulses but taking responsibility for the welfare of the whole community. This consideration for others was critical to community development in the minds of respondents. Many philanthropists also mentioned how discouraging their work was when others failed to get involved. Not surprisingly then, the quantitative aspects of the survey revealed that the biggest givers were people who were widely connected and involved with others doing the same. Charities were seen to have an important role in helping people to link up and to grapple together with the problems facing the locality.

Respondents were also asked to select three priorities for action from the options shown in Table 1.1, which are now ranked in order of the priority respondents gave.

Respondent priorities for action: % of respondents (individuals and organisation reps.) prioritising the option in question	
50%	Build stronger ties between local people in your community
34%	Tackle the exclusion of those disadvantaged people living on the edge of the community
31%	Improve health and wellbeing
29%	Improve education and skills
28%	Tackle people's isolation
25%	Improve safety and prevent crime
24%	Improve housing affordability
23%	Reduce unemployment
20%	Improve the local natural environment and/or open spaces
18%	Tackle the current financial downturn that the economy has been experiencing
8%	Improve arts, culture and heritage

Table 1.1 Respondent priorities for action

It is pertinent that building stronger ties between local people (a relational concern) was the most important priority expressed. And that the next priority was that of exclusion, another relational issue. Arranging priorities by council area, we found that *all* council areas had building stronger ties between people as one of their top priorities. It was a unifying concern amongst all other concerns which differed depending on the council area in question. From these responses it can be seen that people rank relationships as essential to good community life; a gut reaction I explore empirically in Part 2.

The survey also provided some indication that high level givers were happier and their communities better off than was experienced by low level givers. The link between giving (positive) relational networks and wellbeing is more formally confirmed in research carried out by the 'Cambridge Prosociality and Wellbeing Laboratory,' which emphasises relationships as essential predictors of wellbeing (cpwlab, n.d.). Huppert (2014) (controversially) states that although about half a person's happiness depends on their genetic make-up and early experiences, things that cannot change, another 40% depends on intentional activities and lifestyles that can make the best or worst of one's personality. Only 10% happiness depends on external circumstances like wealth. Of the things that a person can do, building positive relationships features prominently.

The New Economics Foundation distilled the happiness literature into 'five ways to wellbeing' (box 1) and it is significant that two of these five are relational actions: connecting to others and giving. This thesis will talk more about the link between these two behaviours, since connecting to others demands at least a gift of time and often of money too.

How people are doing in these relational matters is also closely connected to health, especially stress related health (see for example the many publications on the Science of Generosity website (n.d.) like CNCS 2007). Relationships influence one's sense of identity, self-worth, security and purpose. People want to be unashamed in the presence of others (Bowles 2008), and this is helped or hindered by the networks they belong to and the way they are treated in them. If people identify with a group that

others admire, they feel good in front of others, which is important to happiness (Dasgupta 2009). Even the act of giving (which I assume to be linked to one's position in a relationship) makes people happier (Aknin *et al.* 2013; Dunn *et al.* 2008; Andreoni 1995).

Mochon *et al* (2008) find that whilst the purchase of material goods has a passing effect on subjective wellbeing, minor, repeated relational or experience oriented events improve well-being in the long term. It would seem that as people look back on their experiences as opposed to their purchases, their evaluation of the experiences appreciates over time whilst the value of the purchases does not. This is especially the case if it is a shared experience, the relational element of which is enduring. The repetition of social activities has a cumulative effect that permanently shifts wellbeing. The happiness levels do not simply adapt to the improved situation as they do with purchases, such that repetition can do no more than maintain a status quo.

Bartolini and Sarracino (2014) find the same thing in a cross-country analysis of relationships to subjective wellbeing over time. Increasing GDP levels are associated with increases in happiness in the short-term (2 years) but not in the long term (15 years). Relationships, (measured by trust and voluntary association) have the opposite effect. Changes to relational factors do not correlate with wellbeing in the short term, but they do in the long-term.

Box 1: Five Ways to Wellbeing

Five 'postcards' produced for the public synthesising work by Aked *et al.* 2008

1. Connect: Connect with the people around you. With family, friends, colleagues and neighbours… Invest time in [these connections].

2. Be Active: Step outside… exercising makes you feel good. Discover a physical activity you enjoy and one that suits your level of mobility and fitness.

3. Take Notice: Be curious. Catch sight of the beautiful. Remark on the unusual. Savour the moment. Reflecting on your experiences will help you appreciate what matters to you.

4. Keep learning: Try something new. Set a challenge you will enjoy achieving. Learning new things will make you more confident as well as being fun.

5. Give: Do something nice for a friend, or a stranger. Volunteer your time. Join a community group. Look out, as well as in.

Piekalkiewicz (2016) discovers that positive relationships mitigate the negative feelings people get when their incomes are not as high as other people's incomes, negative feelings that are reinforced in a materialistic, wealth oriented environment. For our long-term welfare, we should be paying attention to relationships then.

The relationships we have with others are certainly good for our own sense of wellbeing, but there are wider implications also. Mutually beneficial and supportive relationships backed up by fair and enforceable rules foster trust, and trust is essential to our ability to collaborate (Dasgupta 2009; Svendsen 2014). We could not even *have* a functioning economy without trustworthy interactions between people. Collaboration is vital to our productivity, since our joint outcomes when we work together, each doing what we do best, is far greater than the sum of what we could achieve as separate

individuals. Collaboration makes us more secure too; risk is spread where we live in connected communities and help one another out. United people are also more powerful and able to withstand shocks (Putnam 1993; Knack and Keefer 1997; Halpern 2005). These 'instrumental' benefits surrounding the way people relate to one another are further expounded in chapter 2.

Not that everything to do with inter-personal relationships is positive; inter-dependence exposes us to risk of harm by others; and even in the best of circumstances fitting in with others is restrictive, costing us a certain amount of freedom in terms of what we should and should not do (El-Said and Harrigan 2009; Grootaert and Van Bastelaer 2002; Du Toit 2004). This thesis takes the view that since no-one is capable of self-sufficiency at all points of their life-cycle, and since pressure on limited resources will inevitably bring the interests of different individuals into conflict, then the option of living isolated lives and avoiding interaction altogether is excluded. More to the point is how we make the *best* of the connections we have; how we can minimise the negatives and maximize the positive aspects of the relationship.

Relationships between people then are unavoidable, and the way that people in a community treat one another significantly affects their quality of life, both for intrinsic reasons and for instrumental reasons. Intrinsically, we are social beings and thrive best in a positive relational setting. People do not live life simply for the acquisition of material goods, relationships are valued too. Good relationships and one's position in a relationship relative to others both have a direct impact on happiness. Instrumentally, positive relationships help us to improve our living standards.

I conclude that paying attention to relationships between people may add more to our quality of life than maintaining our focus on material living standards. Materialism is detrimental for environmental reasons; the planet cannot support an indefinite usage of finite resources for material consumption. Materialism is also detrimental in itself; wanting more decreases our satisfaction in what we have and stimulates negative emotions like envy. Note that it is not that having more is bad in itself, it is the *attitude* of continually desiring more and continually comparing to others that appears to have the detrimental effect. This was touched on in Section 1.2. And thirdly, materialism is detrimental because the pursuit of wealth actually squeezes out our capacity to care for valuable social relationships. Section 1.4 describes this 'trade-off' between the pursuit of wealth and the health of social relations.

1.4 The tension between material concerns and social concerns

Material concerns in developed economies drive people to work longer hours, to move house (community) or to take on crippling household debts. These things divert the time, energy, money and continuity available for building community into the maintenance of a materialistic lifestyle. The materialistic cycle then becomes self-perpetuating, with a dearth of social connection driving people to seek their identity all the more in material goods (Bartolini 2014). All this is evidenced in rising social comparisons and rising inequalities. Happiness is compromised and social vices increase (Section 1.2).

Beyond these immediate impacts however, the very focus of life begins to be diverted also. The following evidence illustrates how motivations become centred on pursuing what is good for *me,* and how this attitude crowds out prosocial motivations that are centred on what is good for *us* and our favourable co-existence. The materialistic stimuli *damage* social considerations.

The first oft-quoted case-study illustrating this damage concerns the six day-care centres in Haifa which imposed a fine on parents who picked up their children late. Instead of motivating people to become more timely, the introduction of the fine was followed by parents *doubling* the fraction of time they arrived late. Bowles (2008) suggests that the introduction of monetary incentives undermined the sense of ethical obligation towards the teachers. Although monetary incentives are motivating, they also led the parents to believe that lateness was a commodity they could purchase. The damage this did to the sense of moral-obligation far outweighed the motivating force of the fine. After 12 weeks the fine was revoked, but the prosocial motivations had been permanently lost; parents continued to come twice as late as they did at first.

Similarly, Frey and Oberholzer-Gee (1997) quote an experiment in Switzerland where people were asked if they would accept the construction of a nuclear waste repository near their community. Around half of the inhabitants agreed (50.8%); certainly the waste has to go *somewhere.* However, when offered financial compensation for the building of the repository, the percentage of persons agreeing to the construction *dropped* to 24.6%. This was not just because people were suddenly awakened to the potential risks by the necessity for compensation; that factor was controlled for. Nor was it simply strategic bargaining; significantly raising levels of compensation did not induce people to change their minds. Frey and Oberholzer-Gee rather conclude that the introduction of monetary incentives, although powerful, had an effect of crowding out intrinsic motivations or 'public spiritedness,' that brings individuals to sacrifice their short-term interests for the good of the whole.

Simply creating a competitive environment signals that cooperation is an inappropriate response and self-interest is in. For instance, Ross and Ward (1996) showed players achieved higher rates of cooperation when the prisoner's dilemma game was called a 'community game,' and lower rates of cooperation when it was called a 'wall street game.' This is not irrational, it just shows that the level of cooperation expected was being signalled. People knew what level of cooperation to expect, and therefore responded in like degree. Levy-Garboua *et al.* (2006) confirm this in many other experiments. They conclude that people generally make decisions with thoughts of others in mind, evidenced especially in the way they are prepared to share out new income. However, these prosocial preferences do depend on knowing the intention of other people; whether they intend to respect the same norms. In the context of market exchange and material incentives, these defaults are altered. People know that the competitive market is not a context in which people share, but in which competition is the acceptable mode of behaviour. Thus the appropriate behaviour in such a context is to maximize ones' own interests/welfare: behaviour appropriate to markets, but not in general.

Problems arise when self-interest is said to be an appropriate response to *everything;* a doctrine that could negatively influence the way we behave towards others. For example in the work environment, once work relationships are framed as competitive rather than cooperative, prosocial attributes like trust (trustworthiness) plummet and job satisfaction with it (Sacco *et al*. 2006). Incentives in the workplace therefore need to be used with care. They usually lead to an improvement of performance in the incentivized area *at the expense of* prosocial motivations upon which longer term cooperation depends. Effort is shifted from the unmeasurable to the measurable, from intangible social benefits to tangible material status.

Fehr and Schmidt (2006) sum up with observations backed by experimental proof from a whole range of different cultures and under varying levels of competition. They find that individuals put into a materialistic, competitive environment in which there is no power to punish self-seeking behaviour tend to act more and more exclusively on self-centred principles themselves, eclipsing the principles of fairness and cooperation.

All these examples point to the same conclusion: a socio-economic environment that treats human beings as selfish *makes* them selfish. Although more wealth is desirable, to focus only on acquiring it and to appeal only to self-centred, competitive norms is to damage our more prosocial impulses. Ariely (2008) and Thaler and Sunstein (2008) suggest that we do not think each of our decisions through in a deliberate, logical manner; rather, we respond to social cues and to general frameworks of thought. This is why setting up a prosocial environment as opposed to an individualistic, materialistic one is so crucial to the kind of decisions we make. People adjust to what is emphasised and expected.

It is probably because of these mechanisms that Bartolini *et al*. (2013) finds an empirical relationship between rising wealth, rising status concerns, rising inequality and a declining quality of social relationships, reflected in declining levels of trust and voluntary association. The increasing wealth by itself has a positive effect on wellbeing, but where the increasing concern for material goods fosters inequality and damages social relationships, the net effects on wellbeing are negative.

All these factors explain why, despite all the personal effort and sacrifice put into the accumulation of wealth, life-satisfaction levels are not responding in consumeristic societies. We have also seen that the way we understand the world and what we measure is very important. It affects how we understand the world, what we focus attention on, and ultimately the wellbeing of society. The next section outlines the progression of our understanding of wellbeing, and on what we can best focus our efforts.

1.5 In search of an indicator that does not misdirect our attention

1.5.1 A shift in understanding

Bruni (2000) outlines how, since the last 200 years or so, economists have considered persons less as parts of a social unit; a unit for whose interests each individual works as part of a whole, and more as independent individuals, each maximizing their own interests. In all but the most recent of economics textbooks, these independent individuals are assumed to each be guided by self-interest, considering others chiefly in terms of the way they impinge on one's own life, either as a rival for resources or, if treated appropriately, as a potential instrument of provision and self-gratification. Agents may act with consideration for the interests and preferences of others, but only insofar as it fits in with their *own* interests and preferences. Thus in micro-economic theory, the 'other' person is essentially a determinant of an individual's own opportunity set. Wicksteed (1933) describes this as 'non-tuism.' The idea of people being in relationships with one another in which each individually behaves in ways that maximize their *joint* quality of life (despite the outcome being sub-optimal for some of the individuals) is excluded from the economic framework. From everything above the household level then, models of mutually beneficial exchange were considered to pretty much account for the motivations behind human interaction and their impact on resource allocation. In this framework of thought, non-egocentric motivations required no special attention.

However the relatively recent field of behavioural economics rather supports a view of humans as a *social* species, with prosocial behaviour patterns being motivated *intrinsically* (for reasons valid in themselves, not only for direct personal reward). As Bruni (2000) argues, the consideration of other people only as instruments for meeting ones egocentric purposes is applicable only to a "narrow slice of human conduct," but this small slice has been emphasised to such a degree that it has been expected to explain the whole of human interaction. The presence of non-egocentric motivations has been demonstrated by behavioural economists in two very simple experiments.

Firstly the 'dictator game,' in which one person, the dictator, is required to decide the allocation of a sum of money between themselves and another, passive individual. They can keep the whole sum themselves, or divide it. If the only influences on the decision-maker were rational self-interest, they would invariably keep all the money. However when put to the test, we find that even when the passive recipient is entirely anonymous and there is no consequence whatsoever to the dictator, around 70% of dictators allocate part of the money to the other person (Henrich 2004; Korenok *et al.* 2012). We see then that the decision is *not* based on self-interest alone; there are non-selfish influences in play as well. These influences are not necessarily other-centred (Bardsley 2008; Gui and Sugden 2010) but they certainly indicate that social factors influence one's decision-making process in ways significantly different from the individualistic premise.

Likewise there is the 'ultimatum game'. In this game, a proposer divides a sum of money, and the responder has the power to accept or reject the sum. If the responder accepts, both parties get the sum of money allocated by the proposer. If the responder rejects the offer, then neither party gets any money. Once again, since this is a one-off game, a rational, self-interested responder should accept any sum, however small, rather than rejecting the sum and getting nothing. But try it out and we find that the responder typically rejects any offer below 30-40% of the total share-out (Henrich 2004; Oosterbeek *et al*. 2004). The responder is clearly willing to accept a personal cost in order to 'punish' the proposer of an unfair share-out, as least insofar as that unfairness touches her self.

Thus I find there are social motivations to decision-making that significantly impact resource allocations between people and which economic theory does not account for. Moral sentiments are found to influence a person's behaviour, and there is also evidence that individuals make decisions based on the joint good of a particular social group even when this does not maximize their own personal advantage (Gui and Sugden 2010; Sugden 1984; Bardsley 2000; Van Lange 1999; Fiske 1992). Although such prosocial behaviour forms may be masked in competitive markets due to the fact such motivations are not always appropriate for such a context, the market arena should be seen as the exception rather than the rule. Fehr and Schmidt claim that the evidence that social or 'intrinsic' motivations are highly significant in determining the distribution of resources is "overwhelming," and should not therefore be missed from our economic models. The nature of relationships between people also affects our ability to get along with others (to collaborate) (Coleman 1988; Putnam 1993; Gui 1996). The rub with rising materialism that we saw in Section 1.4 is that an increase in self-centred, materialistic motivations is supressing these intrinsic motivations that are so vitally important to social cohesion.

As mentioned in Section 1.4: in order to process information quickly, we tend to be guided by rough frameworks of understanding rather than thinking each decision through rationally (Thaler and Sunstein 2008; Ariely 2009). So the more we interpret life through the lens of an individualistic, materialistic worldview, the more our day to day decisions are likely to take on an individualistic character. Indicators of development that focus solely on monetary concerns may actually be misleading us then. The chapter so far has shown that concern for money is inversely related to the attention we pay to other people, and the strain on social structures is enormous. It matters then to get our indicators right, and we need a change of focus before intrinsic motivations are further damaged. So are happiness indicators better?

1.5.2 The limitations of happiness indicators

Happiness measures have certainly made an enormous contribution to our understanding of quality of life in revealing the limitations of wealth and the importance of social relationships. But having said that, consider the way that 'happiness' questions such as the rating of personal life-satisfaction shown

at the beginning of this chapter focusses our thoughts. Just like wealth measures, it is possible that the whole question of 'increasing life-satisfaction' turns our thoughts turn inward (what I need to make me happy) not outward (how we can make the world a happier place). This is because life-satisfaction questions appeal to the individual and his or her personal circumstances. This could suggest that 'happiness measures' suffer from the same social flaw as wealth related measures in that they justify the pursuit of 'good for me' as a valid goal, and thereby bias our attention towards self-gratification, potentially at the expense of others.

The psychologist Carol Ryff offers perhaps a more profound definition of happiness based on the concept of Eudaimonia or 'flourishing'; an ancient conept dating back to Aristotle. Eudaimonia emphasises ideals of belonging and benefiting others as one part of the big wellbeing mix; a concept which again enshrines the importance of relationships between people. Ryff pinpoints six items which are found to improve psychological wellbeing (Ryff 1989; see also Huppert 2014):

- Autonomy
- Personal growth
- Self-acceptance
- Purpose in life
- Environmental mastery
- Positive relations with other

So whilst a hedonistic approach to happiness might take any course of action that maximizes personal pleasure and minimises personal pain, eudaimonia emphasises wholeness as a person *and* within a society. This connection with one's wider social circle is critical; it has more to do with our joint wellbeing as a society rather than each for him or her-self, some win, some lose. For example a hedonist might value extra material goods or free sex or lying one's way out of trouble or the instant gratification of TV chat simply because of the pleasure it maximises and the pain it avoids. Eudaimonia puts these things into the context of environmental damage or family break-up or a loss of trustworthiness in society or the time taken away from building real relationships. I return then to the concept of virtue.

The Oxford dictionary associates virtue with high moral standards; 'right' behaviour for *society*, as opposed to expedience for the *individual.* Importantly, virtues have intrinsic value (Bruni and Sugden 2013). This means that they are worth exercising for their own sake, rather than as an instrument by which to achieve some other goal such as happiness or approval. Relationships with other people (the way we treat each other) are a focus of these virtues. And just like the virtues, interpersonal relationships might be instrumental to improving quality of life, yet a significant aspect of their value is only experienced when valued for their *own sake*, with the rest as a side-effect. Gui touches on this in his concept of 'relational goods' (Gui 1996), in which he emphasises their definition as 'non-contractable coordinated actions.' As soon as outcomes become the focus of attention, contracts about

what each party should contribute to meet those ends are sure to appear and relationship loses its uniquely relational quality to become an economic contract. People are highly perceptive as to whether they are being treated well for some ulterior motive, or whether they are also valued intrinsically; for their own sake, and the spirit of any collaboration that follows will clearly differ depending on this point (Kolm 2010). For example, Rotemburg (2006) observes in a work setting that whether bonuses were paid or whether there were cutbacks, it is how the changes were presented *relationally* that determined the knock on effect these changes had on workers output, on morale, theft, effort or even sabotage.

These relational elements are not captured by asking ourselves how happy we are and trying to find out what to do to increase our happiness. Relationships rather require us to consider how we are affecting the happiness of others. Paying attention to others and to our wider social impact is what this thesis argues will make a major contribution to human flourishing. This is the attitude we wish to better understand.

1.5.3 Inter-personal relationships

The health of inter-personal relationships makes for a promising indicator of wellbeing in that the measure draws attention to an element known to impact quality of life outcomes. Moreover, inter-personal relationships have intrinsic value; they are deserving of attention in and of themselves, and the more attention that is drawn to them, the better. Relational indicators are not subject to the same long term problems associated with focussing on wealth. A wealth focus is neither socially nor environmentally sustainable in the long term. It is also subject to adaptation, limiting its ability to indicate quality of life. Happiness measures are also limited. This is because public happiness and eudaimonia are not necessarily the same thing as private happiness and hedonism. There is no simple measure for the former quality, and a focus of public attention on the latter may easily be understood to justify the pursuit of ego-centric interests, again crowding out prosocial motivations. To add to these measures an indicator of the quality of relationships between people not only provides us with information about social wellbeing; it also focusses our attention on prosocial activities, 'nudging' our behaviour into more welfare enhancing channels.

And so, having justified the need for an indicator of relational health, I set the scene for the next chapter, social capital, which I broadly introduce as our collective 'stock' of mutually beneficial and supportive relationships. This thesis goes on to explore how a critical aspect of this relational component can be understood and measured so as to focus public attention on this important topic.

Chapter 2. **Social capital**

2.1 The development of 'social capital' as a concept

Governments and development agencies are aware that the way people interact is important. They know that those interactions can provide mutual benefit and support, or else can be repressive and extractive, and that socio-economic outcomes hinge on the balance between these two extremes (Halpern 2005; World Bank 2000; Adhikari and Goldey 2010). This chapter reviews the literature on how we may better understand these social interactions. A significant body of research has been carried out under the broad heading of 'social capital' (Coleman 1988; Putnam 1993) or, to a lesser extent, under the heading of 'relational goods' (Gui 1996). Both terms refer to the connections people have with others, with value being expected to flow from these connections.

Coleman (1988) is credited with bringing social capital onto the socio-economic development agenda. In his view a person is motivated by self-interest, yet is constrained by his or her social environment. By 'social environment' Coleman refers to a person's relational networks, the social norms they are constrained by, the trust a person feels towards others and the various organisational structures that characterize their community (p96). 'Social capital' is an attempt to take these social factors into account within a regular economic framework: that is, a framework that assumes people make individualistic decisions based on rational self-interest. In Coleman's view, social capital represents the sum of useful information, obligations and favours that an individual may call in from others. It is then, the power the actor has over the actions of other people given his or her social environment (see Coleman 1988 p109).

Coleman suggests at least three ways in which the social capital stock may yield value to the person in possession of it: Firstly, from having done something for others in the past for which reciprocation is due. This depends both on the favour done and trustworthiness of the recipient – whether she may be counted on to reciprocate. Secondly social capital accrues from how well the network supplies the person who is part of it with useful information. And thirdly, benefit flows from others may be a right determined by social norms and backed up by sanctions.

Each individual 'owns' their own social capital (varying levels of benefits due from others), although positive externalities are also generated from the positive social interaction for the wider community. Self-interested individuals have no interest in making investments for which benefits accrue indiscriminately however, and thus Coleman expects social capital to suffer from underinvestment by private individuals.

Community development agents readily grasped the idea that an individual's inter-personal connections and what can be expected of these connections is a valuable asset (Grant 2001). However, the idea of social capital sits uneasily within Coleman's individualistic conceptual framework. Inter-

personal connections have to do with the relationships between multiple parties; they depend on reciprocity and cannot be created, defined or 'consumed' by one person alone (Gui 1996). As was touched on in Section 1.4 and 1.5, there is a social aspect to social capital that an individualistic decision-making framework is too limited to fully explain. Thus Putnam introduced the idea of social capital as a communally held good. He famously described social capital in 1993 as 'features of social organisation such as trust, norms and networks, which can improve the efficiency of society by facilitating coordinated actions' (Putnam *et al*. 1993 p167). This 'ability to collaborate' is, in divergence from Coleman's definition, a *communally* owned good and a much broader way of viewing social capital. The concept spawned hundreds of observations in the 1990's and 2000's to the effect that some communities appeared better able to take up opportunities for progression than others. Networks, social norms and trust levels seemed to explain the differences in the propensity of people to collaborate, and the collaboration improved the group's capacity to generate wealth and cope with shocks (see for example Portes and Landolt 2000; Bebbington *et al*. 2004; Grant 2001; Halpern 2005; Putnam 2000; World bank 2000; Krishna 2002; Grootaert and Van Bastelaer 2002; Boyd and Folke 2012). All these findings add support to the concept of social capital as a generalized cohesive element that empowers a community and makes it productive.

Gui's (1996) treatise of 'relational goods' takes more account of the communal nature of the good than Coleman, but is narrower in definition than Putnam. Whilst Putnam's theory is in danger of becoming a 'theory of everything' (see Section 2.3), Gui focuses on the intrinsic and instrumental benefits arising only from personal encounters between people, and only from non-contractable (non-enforceable) coordinated actions. Like Coleman and Putnam, Gui does not provide a metric of relationship, just evidence of its importance in quality of life outcomes.

This chapter firstly considers the broadest reaches of social capital before focusing in on the prosocial qualities of relationships in the civic sector. It proposes that a prosocial civic sector contributes to socio-economic development in ways that are distinct from and complimentary to the contribution of state and market sector interactions. Section 2.2 considers the components of social capital under the headings of (2.2.1) networks; (2.2.2) social norms; and (2.2.3) attitudes, and then I consider the pitfalls that have arisen over the concept and measurement of social capital.

2.2 The components of social capital

2.2.1 Component 1: Bonding and bridging networks

As for what social capital actually consists of, every author evoking the concept of social capital evokes the concept of interpersonal connections. Different types of relationships yield different benefits. This is why many authors distinguish between bonding social capital and bridging social capital, basing their definition on the difference in benefit flows specific to each connection. The

following summary of bonding and bridging connections and their benefit flows is drawn from authors including Grootaert and Van Bastelaer 2002; El-Said and Harrigan 2009; Krishna 2002; Grant 2001; Halpern 2005; World bank 2000; Woolcock and Narayan 2000; Durlauf and Fafchamps 2004; Vajja and White 2008.

Bonding social capital connects people within a defined group who know each other personally and have commonalities in identity, interests, patterns of thinking and living conditions. Because of the closeness of these ties, bonding social capital is associated both with mutual support and insurance/risk spreading. People look out for one another and help out their own when in trouble. However, this same closeness and personal commitment also creates strong obligations to reciprocate and to conform to unifying group norms. The nature of these norms may not always coincide with the interests of some of the individual group members. If these conflicts of interest cannot be worked out to mutual satisfaction, then the ever-present restrictive/coercive element of bonding social capital can have a negative impact on wellbeing. However, if fair and effective solutions can be found such that most people will willingly coordinate their actions, the resulting group solidarity serves to strengthen the members against shocks and also to empower the group for negotiation with the outside world; power which again may be used positively or negatively for the wider society. So solidarity in this sense means that the group members concern themselves with one another's welfare, something that will be evident in fair solutions to conflict and in an effective use of available resources to the benefit of all members.

Not everyone can be connected to everyone in such a personal way however, and thus bridging links are also important. Bridging social capital (overlapping with Granovetter's concept of 'weak ties' (1973)) refers to valuable connections between persons of different social groups.[1] The relationships between persons are not necessarily so close or committed (differences between the actors may result in higher costs and risks to the relationship), but the connections are channels for valuable resources, opportunities and ideas from one social group to another. Links are often specific to the channelling of particular resources, information or opportunities, so the more links a person has, the wider their opportunities for progression. Also some connections are more useful than others, so exactly who one has a connection to and what particular resources are channelled through those persons makes a lot of difference to the speed of progression. In the context of community development, it becomes clear then why these bridging links are commonly associated with economic development; bonding social capital might determine the distribution of resources within a community, but it is bridging social capital that brings those resources in.

[1] Sometimes a further category, 'linking' social capital is added to distinguish links to groups of a different social hierarchy from 'bridges' to other groups of a similar social hierarchy.

The bonding and bridging social ties are both valuable complements to human, natural and man-made capital (Woolcock and Narayan 2000; Grootaert and Van Bastelaer 2002). Moreover, it has to be emphasised that the links are embodied in *people,* which is why the aptitude and character of leaders is such an important determinant of how many resources are getting channelled into a community and how those resources are getting distributed (Krishna 2002). The existence of social networks then are one key component of social capital, but the way people behave within those networks also matters. As Du Toit (2004), Adhikari and Goldey (2010) Della Giusta (2003) and others point out, a broadening and deepening of connections will not improve society if those ties favour one party over another. Such ties will rather trap the less powerful members into a system that exploits them.

Social capital is not only about connections then, but about connections that are characterised by trust. For this reason the latest Harvard website definition of social capital talks not only of social/relational networks, but also of the inclinations arising from those networks to do things *for* one another (my emphasis, Harvard Kennedy School n.d.). Doing things for, not against the interests of the other is trustworthy behaviour. Because people not only need to be connected, but connected in a trustworthy manner, Knack and Keefer (1997) and Dasgupta (2009) both consider social capital in terms of the mechanisms through which trust is built.

2.2.2 Component 2: Social norms conducive to trust

To trust someone is to accept interaction with others and the vulnerability that this exposes you to in the confidence that you will not be taken advantage of (Cox *et al.* 2014). Thus trust reflects that the risk of being cheated is small (Svendsen 2014). Trust is essential to cooperation because it is the cheapest way to reduce transaction costs. If one party feels that the other will take advantage of them given the chance, then cooperative activity must be reduced; every transaction would have to be highly policed and the costs of writing, monitoring and enforcing every minute contract would be prohibitive (Svendsen 2014). Thus all mutually beneficial economic transactions depend on an element of trust. Indeed, Knack and Keefer (1997) and Algan and Cahuc (2013) both find a strong association across countries between trust and economic status. Algan and Cahuc's figures represent over 90% of the world population and show that causality runs from trust to incomes and economic growth. Trust assures the parties carrying out the transaction that the other side will carry out their side of the agreement; forward planning decisions can be made with more confidence; longer term and more wide-ranging cooperative agendas may be ventured (Arrow *et al*. 1997; Svendsen 2014; Della Giusta 2008).

So it is that social capital, in fostering trust, increases the capacity of a community to collaborate. Trust is not a commodity that an individual can manufacture on her own; it is a product of the trustworthiness of the actions of others. Trust constantly adjusts in reaction to external experience (Fehr and Schmidt 2006; Keser and Van Winden 2000; Binzel 2013). This experience may be founded

on (1) personal acquaintance with the persons to whom the trust question is related, and first-hand knowledge of past behaviour, or (2) confidence in the efficacy of a system that facilitates mutually beneficial transactions. The 'system' facilitating mutually beneficial transactions comprise both formal and informal norms, rules and sanctions. For example the criminal justice system represents a more formalized extreme, whilst one informal mechanism of assurance is 'reputation' in which trust is based on third party information regarding past behaviour, and the sanction for unreliable collaborators is non-cooperation.

Dasgupta (2009) particularly highlights the importance of these 'system'-facilitated aspects of trust creation and preservation; the role of social norms and institutions. He explains that 'social norms' (or more formally, rules and institutions), apply pressure on people to behave in a certain way. These 'rules of the game' are backed up by sanctions, formally or informally imposed. As just mentioned, these sanctions can range from a breakdown in reciprocation and loss of mutual benefits to a corrective or retributive counterattack on the welfare of a party who has offended the interests of another. The credible threat of sanctions puts pressure on individuals to conform to group expectations. This pressure reduces the risk attached to transactions; the actor can have confidence that what is said will be done, and that the risk of being cheated is small. As a consequence, more goods will be reciprocated or transferred. Public goods can be provided and trade and collaboration flourishes. The threat of potential sanctions and the long term benefits of compliance are a powerful counter-force to opportunistic behaviour that would encourage an individual to do whatever brings the best immediate return to his or her own self, indifferent of the cost to the other party.

For institutions to contribute to trust, they must be effective and stable (reliable) such that future benefit flows are certain. If they are unreliable, unfair, corrupt or under stress however, potential gains in the future that may be had through maintaining trusting relationships become less certain. The value of future resource flows is therefore discounted compared to whatever can be had in the moment, despite the long term trade-off. In such cases, cooperation is often renounced in favour of gain at the other person's expense (Grant 2001; Grugerty and Kremer 2002; The World Bank 2000; Woolcock and Narayan 2000; Dasgupta 2009; El-Said and Harrigan 2009).

Note that Dasgupta's train of argument, along with Knack and Keefer's, lead us from Gui's concept of 'relational goods' as informal, non-contractable cooperation into the arena of formal transactions with formal rules and sanctions to facilitate them. Certainly the borderline between the informal and the formal is blurred, since contracts and formal behaviour codes evolve from generally accepted norms of behaviour, with new refinements constantly being made as the various people affected by the contract interact and voice their interests (Uphoff 1986; North 1990).

Since rules tend to be formed by negotiation, and since the power of the negotiators is not necessarily equal, then formal rules are by no means guaranteed to be fair; they are more likely to end up

favouring the more powerful negotiator (Kanbur 2010). Likewise norms established in an aggressive, low trust social environment are more likely to lead to institutions which are extractive and polarizing rather than facilitating and (eventually) beneficial to everyone (Acemoglu *et al.* 2004). We see then that the consequences of the way people relate to one another informally reach far beyond the confines of informal relational networks; they also affect the state and market sector. Likewise trust between people and the positive outcomes for society that emerge because of that trust is a product of how people treat each other in all sectors, state, market and civic, not just in the informal sector alone. Although this thesis will confine itself to analysing the condition of relationships only in the civic sector, it is important to understand that the three sectors all interact. See for example Yamamura 2012b; 2012c; and Fong *et al*. 2006, all making an overt connection between private norms of participation and redistribution and the feeling that tax burdens are bearable.

As observed throughout this section, individuals resist cooperation with rules and power structures they do not like, and their opportunistic responses under such conditions inhibit the flourishing of the formal economy as well as private relationships. Conformity to the rules cannot be obtained solely through the punishment of transgressions. For one thing it is a bureaucratic nightmare to define and monitor contracts in sufficient detail, and the costs of litigation, contract enforcement, insurance, policing and protection become too high (Svendsen 2014). More than that, coercion destroys the *willingness* to give one's best. Rules encroach on personal liberties, inhibit efficiency as people lose control over the product of their own efforts, de-motivate people from productive effort and foster subversion (all problems associated with centrally planned regimes for example). Thus people cannot be motivated to give above and beyond their minimum through coercion. There has to be some kind of internalized motivation to cooperate also. Fehr and Schmidt 2006; Ariely 2009; Rotemberg 2006; Fong *et al*. 2006; Putterman 2006 all write about this element in the context of cooperation in the workplace (not the informal sector, but nevertheless a cooperative environment that overlaps with relational norms outside of work). They find that as soon as force, threats, or incentives appealing to self-interest are introduced, the cooperative spirit and morale plummets. The volition and intrinsic motivation of the 'giver' then is extremely important.

Since the imposition of rule cannot in itself produce flourishing cooperation and trust, Dasgupta (2009) maintains that building trust within a large group from a low level is a long process requiring a general cooperation with norms of behaviour that are progressively more and more beneficial for society as a whole. There is an aspect of compromise to the individual, who will sometimes be required to give up an opportunity to herself where its pursuit damages the interests of someone else. This compromise will only be accepted as trust that others will reciprocate such behaviour expands; trust that is based on the evidence and experience of other individuals complying to fair and effective norms, rules and sanctions (see also Sen 2009; Kolm and Ythier 2006). In this, says Dasgupta, is the fragility of trust: only one side needs to resist conformity for trust to be lost and for cooperation to be

broken up on both sides, reducing resource flows between people. Rules cannot substitute for people who are basically not willing to comply and who are continually looking for loopholes in the system. Note then two elements involved in trust-building: the social environment in terms of its rules and sanctions, and also a personal willingness to comply. This introduces our third component of social capital: individual attitudes.

2.2.3 Component 3: Individual attitudes

Some similarities may be noted between the description of bonding and bridging social capital in Section 2.2.1 and the concept of social norms in Section 2.2.2. Both feature powerful social norms of behaviour that place restrictions on the individual for the sake of the community. Both can have positive *or negative* effects on certain parties depending on the character of the interaction. The social issues are clearly overlapping, but the main point emerging is that (1) connections between people affect social and economic outcomes and (2) the value of these connections is enhanced when people operate through them in a trustworthy manner.

Whether or not people act in a trustworthy manner towards their contacts is partly a product of their social environment, and yet I propose that humans also have the capacity to act for the good or bad of others independently of how they are treated themselves. Think of Nelson Mandela under political imprisonment in South Africa for 27 years, nevertheless inspired by the declaration, '*I* am the captain of my soul.' In terms of the knock-on effects of this attitude, just imagine how unlikely a peaceful transition of presidential power to his rule would have been if Mandela had been less reconciliatory in his attitude to the group that imprisoned him. My empirical analysis in Part 2 therefore explores the hypothesis that individual attitudes matter, since each person's attitude may be distinct from the attitudes of others in a given social environment. We can observe that whilst a change in social context might impact private attitudes on *average* (Fershtman *et al.* 2009), each individual within that context may still act differently from the next. There will be many reasons for this variation, but, as is taken up in Chapters 3 and 4, one of those reasons comes down to prosocial or antisocial personal choice. Authors such as Falk *et al.* (2016) using cross country studies and Deckers *et al.* (2016) using experimental date describe how these moral or value based preferences exist, differ, and significantly impact economic decisions and outcomes. The thesis seeks to test the hypothesis that an individual's choice of action and reaction has its effect on the experiences of the people whom the actor is connected to, and thus feeds back to the general social environment. This would mean that the attitudes of individuals and the social environment interact in the creation of social cohesion.

An interaction between the individual and their social environment is not a new idea with respect to the evolution of social structures: see for example the sociological literature on structure and agency (e.g. Berger and Luckmann 1966; Giddens 1984). The 'structure' of society provides the set of choices available to an individual, whilst 'agency' refers to the level of freedom an individual has within that

structure to do what they want. Which choices the individual makes in turn affects the ongoing structure of society; society influences individuals who influence society. Although not new, the concept has rarely been applied to the domain of social capital; social capital literature has rather focused on social structures alone. However there are some exceptions, and I do find reference to the idea of 'civicness' or civic virtue and its interaction with community-wide trust (e.g. Knack and Keefer 1997). Krishna and Uphoff (2002) also suggest a distinction between structural social capital (referring to tangible connections, rules and sanctions) and cognitive social capital (referring to the intangible motivational forces). The inclusion of the attitudinal component to social capital is an important aspect of this thesis' new conceptual framework.

Of essence is an individual prosocial willingness to act in the interests of the group and to eschew non-civic behaviours such as tax avoidance, false benefit claims, bribery, free-riding and so on. The behavioural economics literature is useful in examining these attitudes, and more detail on the subject will be given in Section 3.2.3. The main point in brief is that individuals appear to act in a prosocial, trustworthy manner both for self-centred reasons and for other-centred reasons (Kolm and Ythier 2006; Gui and Sugden 2010). Self-centred reasons for prosocial decision-making may include strategic manoeuvring in order to gain the advantages of collaboration and in order to avoid the pain of sanctions. Other-centred reasons include personal regard for the other person and for their welfare. Even more intrinsically, a group of persons may adhere to moral codes and values useful to the whole, or, in the context of their own identity group, they may each be willing to play their separate part in an overall social plan; the group's plan, not each person pursuing a private agenda. This last point was conceptualised by Rousseau in 1762 as 'general will,' and more recently as 'team thinking' (Bardsley 2000). Taking this multi-sided motivation into account, Bardsley and Sugden (2006) as well as and Fong *et al*. (2006) review the literature to conclude that social issues fit but poorly into a 'framework of methodological individualism.' When making decisions about the way to allocate resources, most people factor in the effects on themselves *and* on others, and they do this for instrumental as well as intrinsic reasons.

This thesis notes then that prosocial motivations are present in society, but are continually counterbalanced by opportunistic, self-centred interests in which each individual prefers his or her own advantage to that of others, including to that of their own identity group. The prosocial interests are conducive to collaboration and trust, and the self-centred ones hold it back when norms of cooperation are undermined by opportunistic behaviour that evades the net of norms and sanctions. To understand decision-making then, we need to be aware of the pro or antisocial attitudinal component to the decisions made. Case-by-case motivations and attitudes between the parties involved are crucially important in influencing the rate at which trust inducing norms and institutions become established or whether people need to withdraw from cooperation in order to protect their interests from the opportunism of others.

2.2.4 Summary

So far we have seen that cohesive relationships are preferable to fragmented relationships in terms of their impact on society, and the social capital literature is an attempt to understand this vital asset better. Social capital impacts society both intrinsically and instrumentally. Intrinsically: people do not live life simply for the acquisition of material goods, they value of contact with other people for its own sake. Mutually beneficial and supportive relationships and one's position in a relationship relative to others thus have a direct effect on happiness (cpwlab n.d.; Bartolini and Sarracino 2014; Wilkinson and Pickett 2009). Instrumentally: productivity is increased by working with rather than against others. Thus social capital is associated with better health (Kawachi *et al*. 2008), higher incomes (Knack and Keefer 1997), lower crime levels (Sampson *et al*. 1997), increased equality (Rothstein and Uslaner 2005), better connections to resources and opportunities (Grootaert and Van Bastelaer 2002), enhanced risk sharing, security and conflict resolution (Krishna 2002), improved provision of public goods (Anderson *et al*. 2004)… in fact it is hard to think of any area of life that is not impacted by the quality of relationships between people. See Halpern (2005) or Putnam (1993; 2000) for a more complete overview of the evidence.

The all-encompassing scope of social capital makes it extremely difficult to analyse, but these are the key components of 'relationship' that I have drawn from the literature so far:

1. **Networks**: The extent and density of connections between people: who is connected to who and the power and resources belonging to each party;
2. **Social norms**: The norms that govern behaviour within those connections; norms which regulate therefore the resource flows between those parties. Fair and reliable social norms within a network inspire trust. They assure both parties in a transaction that the promised benefit flows of an interaction will materialize according to expectation. This allows more resources to flow between the members, generating benefits in terms of happiness, peace and prosperity. The social norms emerge out of the responses and counter-responses of people as they interact. The relative socio-economic status (power) of the parties in negotiation therefore influences the evolution of the norms.
3. **Attitudes**: This thesis diverges from early studies of social capital in order to highlight also the importance of individual attitude in determining the outcome of the interaction. This addition is not compatible with a definition of social capital as a communally held good (attitudes being highly personalized) and yet the influence of attitudes on the nature of any social interaction is clear. A person's own attitude towards others is partly shaped by the socio-economic environment (s)he lives in, including the treatment (s)he receives. However individuals also have a certain freedom to choose for themselves how they behave, and this feeds back in some small way the collective environment and everyone's future benefit flows from it.

In divergence from other approaches to social capital, my thesis focuses on this interaction between individual attitudes and the wider social environment as being key to the creation or destruction of social cohesion. The interactions are illustrated in Fig.3.3 and 3.4 (Section 3.4) and the following chapters explore its implications in more detail. But first I consider the conceptual problems that have arisen with social capital theory as it stands.

2.3 Conceptual problems with social capital

We have seen that social capital is a broad, multi-faceted concept, and many authors fear that it attempts to amalgamate too many different concepts into a single term. For example the concept originated with a study of informal links between people, but in extending this to a more generalised 'capacity for collaboration' the scope of study was expanded to the formal economy also. Indeed, relationships between people touch and are touched by every area of life. To try to explain every complexity of the relationships between people and their every impact is almost to produce a model of everything; it is just too big to simplify in any meaningful way. The complexity of social capital makes it very difficult to define, quantify or address in actual policy decisions (Bebbington *et al*. 2004; Portes and Landolt 2000; Quibria 2003; Ostrom 1997).

Social capital is generally measured by tracking changes to its component parts. That is, by tracking changes to levels of trust or adherence to norms, comparing membership of associations and networks, and collective action (see the summary of multiple measurement studies presented in Durlauf and Fafchamps 2011; Gootaert and Van Bastelaer 2002; Krishna 2002; OECD 2001). However, the way these elements interact with each-other is so complex and so context specific that the conclusions become ambiguous for anything other than a case-by-case analysis, and it is particularly difficult to compare social capital across different cultures.

Even the term, 'capital' is strongly contested; whether social norms and networks can really be understood as a stock that is depleted as it yields returns. It has not been clarified how (or whether) one may consciously invest in it. Even on a theoretical level, norms, networks and trust can hardly be altered by investment variables that appear to consist of the same thing (Ostrom 1997; Quibria 2003). And on a practical level, any attempt by external agencies to engineer collaborative structures has had poor success rates unless solidarity was pre-existent (Adhikari and Goldey 2010; Vajja and White 2008; Portes and Landolt 2000). There is even the question of whether external agencies have any business getting involved with inter-personal relationships in the first place (critiques of intervention-ism that disrupts delicate social balances include Polanyi 1944; Ostrom 2000; Carilli *et al*. 2008).

Trying to measure social capital by connection density and levels of collaboration is further complicated by the fact that interactions are not always beneficial; for some, interaction may mean exploitation, repression and disempowerment, or else established social structures may inhibit

beneficial adaptations and change. This negative side to relationships between people is well documented by authors such as Adhikari and Goldey 2010; Woolcock and Narayan 2000; Silvey and Elmhirst 2003; Rankin 2002; Du Toit 2004; Serra 2011; Portes and Landolt 2000; El-Said and Harrigan 2009; Boyd and Folke 2012.

Some negative social structures are clear. For example, norms that entrench inequality; or cases in which a well-bonded group acts at the expense of non-members. The rich are also capable of using their influence in a negative way through social structures; resisting implementing policies of general benefit should these policies damage their own interests. Adhikari and Goldey (2010) for example provide case studies of how mutually beneficial agreements are regularly destroyed by the self-interest of the elite who are impervious to reprimand. Social powers and position can be used to extract advantage for a few rather than being used for the good of the collective.

Other negative social structures are more ambiguous: For example ties that are generally supportive and empowering within a group context, but which *may* at any time be mobilized against outsiders to the group (El-Said and Harrigan 2009). Or bonding ties in which the advantages of mutual support *barely* outweigh the disadvantages of having one's personal freedoms restricted for the sake of solidarity (Grootaert and Van Bastelaer 2002). There is a constant tension between freedom (self-determination) and inter-dependency, which involves a compromise of self-interest for the good of those in ever widening social circles. Social capital theory recognizes this tension, but, especially since the same social power may be used for good or bad, it is difficult for social capital measures to pronounce whether changes to a particular norm, network or socio-economic structure add to overall social quality or detract from it. Certainly interventions to networks and norms for the purpose of improving coordinated actions are not guaranteed to have a positive effect on every actor's welfare. Social capital may also change in expression, for example as informal networks are replaced with formal structures, and it is difficult to evaluate whether the outcomes in terms of the quality of relationships between people are better or worse (Woolcock and Narayan 2000; Sobel 2002; Guiso *et al*. 2004; Mosse 2006).

These ambiguities and lack of clarity in understanding and measuring social capital hinder policy makers in their decision-making with respect to social issues. The effect of policy on social cohesion is difficult to evaluate accurately or to set targets for. And as we saw in chapter 1, when these concerns are neglected, they are in danger of getting squeezed out by more individualistic agendas.

What remains from the literature as a whole is that the nature of social interactions between people can add enormous value to society or else detract from it, and that these qualities are not fully accounted for in the monetised economy. I have described some conceptual differences in the understanding of this resource, as different authors focus on different aspects of it. I also outline difficulties in measuring its positive influences on society and in distinguishing the positive influences from the

negative (Bebbington *et al.* 2004; Portes and Landolt 2000; Quibria 2003). Any measure of interpersonal relationships that I use needs to distinguish between the positive and negative impacts of social connections on society. I also recognize the need to tighten up the particular context of my social capital definition, so as to avoid the 'theory of everything' problem outlined at the beginning of this section. Moreover whilst it is informative to consider each component of the social environment separately, a change in one or another structural component cannot predict the overall impact of that change on social cohesion, since one structural component interacts with another to magnify or mitigate its impact.

In this thesis I propose that some of these measurement problems may be overcome by considering the link between social capital *stocks* and resource *flows*. The social stock is highly complex, but the resources that flow from it are easier to trace. Since the way these resources flow depends entirely on the relationships that drive them, we may be able to evaluate the stocks *by* the flows. This link between social capital stocks and resource flows is discussed in Section 2.4.

2.4 The link between social capital stocks and resource flows

The link between social capital stocks and resource flows is rarely addressed in the social capital literature; we see constant reference to it, without much being made of its significance. For example, links between people *channel resources* (Krishna 2002). Norms and attitudes influence *how resources are distributed* amongst different parties (Kolm and Ythier 2006). Unresolved conflict over resources destroys trust, whilst a capacity for collaboration can help multiply those resources (Grant 2001). Lack of time and money or increasing demands on time and money reduces the capacity of individuals to put those resources into prosocial activities (Putnam 2000). Social capital is often measured in terms of group membership or in terms of contributions to public goods (OECD 2001), both directly related to the way individuals allocate their time and money. Solidarity is reflected in the pooling of resources whilst opportunistic behaviour causes people to withhold the flow (Adhikari and Goldey 2010). The relative resource distribution between parties speaks into one's position in a relationship; it is one of the factors determining who is more powerful and independent, and who depends more on the goodwill of the other. Thus how much one actor has in relation to another affects the social distance between people, raising stress levels and provoking antisocial behaviour patterns (Wilkinson and Pickett 2009). Resources are power and the powerful make or break the rules (Ellul 1984; Adhikari and Goldey 2010; Acemoglu *et al*. 2004). All these references show how resources are not in themselves *part* of social capital, but their flow is affects and is affected by social capital: social capital and resources are intimately linked.

It is this connection between the social capital 'stock' and resource 'flow' that potentially provides a way of evaluating social capital; the way resources flow between parties may be used as an indicator of the relationship between those parties. For example a lack of resources flowing to and from a party

may be considered a sign of missing connections and lack of development opportunity. Where resources are flowing but the resource distribution between people is polarizing, it is a sign that people are connected, but not in ways that build trust into the relationship. Connections are being used, but not to the equal advantage of all; the strongest advance and the weakest are left behind, or in the worst case scenario, the weaker party may even by subject to exploitation by the more powerful. Where resources are flowing and the resource distribution between people is equalizing, we may conclude that the parties involved are collaborating and exchanging resources for mutual advantage, providing extra care for the weaker parties where necessary. Except in cases where this equality is only maintained by coercion (in which case the system is not resilient to shock), this is the scenario associated with social capital.

Resource flows reveal information about social capital then, even to the detail of who is connected into valuable social networks, and who is not. If social capital is to counteract the polarization of resources between people, then it is essential that those who are less well-endowed are not excluded from high value social networks. The term 'less well endowed' refers to those who have less income *and* those who have less power. For example people may be mentally or physically dependent because of health, disability, youth or extreme age even when they are well endowed financially. They may also be less well-endowed in that their ethnic group or sub-culture might have lower levels of representation in a community. Such groups are more dependent on the good-will of others than those who have money, health and control. For a community network to be characterised by solidarity, equalizing resource flows should be seen to reach all these groups. And certainly resource flows to and from these groups can be monitored in order to compare the experiences of one sub-group to the experiences of another.

Measuring how things are going by resource flows has a long history. Formalized interpersonal exchange for mutual benefits is already measured; GDP is used as an indicator of development. Inequality as just described is also monitored as a social indicator of importance. A networked society has multiple channels by which resources may be transferred from one party to another; individual to individual, through charities and organisations, through institutions that limit the advantage that one person may have in relation to another, for example by limiting salary differentials or offering company shares to employees, and also through state taxation and redistribution. People expressing considerate preferences through willing participation in any of these channels may be contributing to social cohesion, to trust and to an increasing capacity for collaboration in the society. Indeed, Schokkaert (2006) and Laferrere and Woloff (2006) refute the claim that altruism rules in the family context and self-interest outside of it. They show that motives are always mixed across the various sectors of society, with self-interest constantly counter-balanced by prosocial considerations involving a willingness or need to factor in the interests of others. Having said that, there is evidence that the same person is capable of relating to people differently in different social frameworks (Fiske 1992;

DeScioli and Krishna 2012). We cannot infer from resources channelled in one sector of society the state of relationships in another sector then. The competence and trustworthiness of the government and people's attitudes to the government may differ from the way people view each other in the informal sector for example.

Clearly there are many forms of resource flow that are specific to social capital in its differing sectors of society, be that the state sector, market sector or civic sector. The problems of measuring social capital outlined in Section 2.3 caution us that one measure cannot cover all these sectors. This thesis therefore focuses on the quality of relationships within the civic sector only.

The civic sector comprises our 'living space,' in which we interact with family, friends, neighbours and people from other communities (Bradley 1998). The resource flows associated with these interactions are giving flows. Indeed, the civic sector is often described in terms of the 'charitable sector' or 'voluntary sector' (Frumkin 2002; see also the 'Johns Hopkins Global Civil Society Index' (n.d.) which is principally a study of non-profit organisations through which people may give time and money).

The quality of the civic sector, reflected in giving flows, is not independent of the uniting or polarizing forces within the state and market sector. For example market sector resource transfers can bring people together in pursuit of common interests, but its competitive forces can also divide them, especially as wealth differentials increase. The state sector, taking the role of governance, is able to mitigate the polarizing forces of competition through redistribution. It also influences social cohesion by altering the opportunities available to individuals and regulating the way in which people interact with one another (OECD 2011). We have seen however that top down control cannot hope to be efficient without the civic sector compliance (Svendsen 2014), which means that the way individuals choose to interact of their own volition may be an additional component to the social mix, worthy of study in itself. Bowles (2008) and Frey and OberholzerGee (1997) likewise talk of 'intrinsic motivations,' how these interact with the rule-making sphere, and the critical importance of these non-contractable motivations on cooperative, cohesive outcomes. The identification of this 'prosocial' element, what affects it, and its unique contribution to healthy social outcomes are the topics of this thesis.

Monitoring giving flows is useful in the identification of prosocial inclination in the civic sector for four reasons:

1. Firstly, giving is the product of the whole mix of social drivers, and this offers us a solution to the problem of trying to work out how a change in one or another component of relationship affects the aggregate outcome in terms of social cohesion. The various aspects of a relationship are complex and context specific, but the giving that flows from them is easier to quantify.

2. Secondly, giving flows represent a positive interaction between persons, and so in monitoring giving we distinguish the positive aspects of social interaction from the negative.
3. Thirdly, although trade flows and government redistribution may channel the bigger volume of resources, giving flows uniquely reveal the preferences of individuals *outside* of enforceable contracts. By definition giving cannot be bought or imposed; once under contract, it can no longer be classified as a gift. Giving behaviours therefore have wider implications than the resource transfer alone: They provide us with special insight into individual prosocial motivations. And as we saw in Section 2.2, these prosocial elements with their structural and cognitive drivers are potentially important to effective collaboration with all its advantages, since force alone is not enough.
4. Fourthly, giving can be quantified both on an individual level and at an aggregate, regional level (the percentage of persons manifesting a certain giving behaviour). Who one gives to (only one's close social circle or also outside of it) also provides us with information about whether prosocial motivation is generalized or else very group specific, the latter being indicative of a fragmented society.

So then, my approach differs from conventional ways of measuring social capital in that instead of attempting to quantify the complex stock of relationships, I consider a representative flow from that stock. Relationships are hard to quantify, but giving time and money to others is an indication that individuals are taking other people into consideration in the decisions they make over the allocation of resources. Giving flows may therefore be used as a proxy of a person's prosocial inclination. This depends on structural and cognitive drivers, and it may be expected to contribute to social cohesion and the health of the wider social environment. I explore these links further in Chapter 3.

Chapter 3. **Giving**

3.1 Dimensions of giving

A range of questions on giving behaviours have been asked in UK surveys such as the 'British Household Panel Survey,' its sequel 'Understanding Society,' and 'The Citizenship Survey.'[2] These questions include the following areas of giving:

- Donations made to charity over a specific time period;
- How much money was donated;
- Attendance of a group activity (with detail about which activity and levels of commitment);
- Unpaid time (volunteering) offered for the running of any of the above group activities;
- Helping people out informally (not through an organised project) both within and outside of one's own household
- Household chores or care work done for others inside and outside one's own household;
- Sharing shopping and cooking with others;
- Having visitors round for food or drink over a specific time period;
- Frequency of talking to neighbours;
- Civic participation (voluntary interaction/involvement with state activities);
- Frequency of mixing with friends; also information on which ethnic or religious group those friends come from.

This chapter introduces how these giving flows relate to each other and to social capital in the literature, prior to my own empirical testing of the links in Part 2. Since, in Section 2.2.1, I have introduced the importance of bridging social capital channelling resources across social boundaries as well as bonding social capital channelling resources within them, it is also interesting to note who is giving to whom; whether there is evidence of giving *across* social boundaries, as well as *within* them. Some indication of this can be gleaned from whether a respondent gives only within their informal network of friends and family, or whether they also give via groups and charities. The more formal the

[2] The British Household Panel Survey (BHPS) is a longitudinal study carried out from the University of Essex as an instrument for social and economic research. A sample of British Households was interviewed from 1991 to 2008. See https://www.iser.essex.ac.uk/bhps/documentation for questionnaire details. Understanding Society is its sequel, running since 2009. It is the largest panel survey in the world, covering 40,000 households and 100,000 individuals. See https://www.understandingsociety.ac.uk/ for detail. The Citizenship Survey began in 2001 and ran as a continuous survey from 2007/8 to 2010/11, with different persons being surveyed in each of these years. This dataset was particularly rich in information about one's local neighbourhood and about one's personal contributions to it. See http://webarchive.nationalarchives.gov.uk/20120919132719/www.communities.gov.uk/communities/research/citizenshipsurvey/ for detail. All data from these surveys is available in the UK data archive (http://www.data-archive.ac.uk/).

structure for giving, the more likely it is that people are making connections with those they would otherwise not come into contact with (charities *exist* in order to link people and channel resources in this way as can be seen from any charity website). We can also look at questions about racial or religious mixing. But before detailing the links between 'giving' and 'civic relations' I consider how widespread worldwide giving behaviours are.

The Charities Aid Foundation (CAF) produces a World Giving Index using data from the Gallup World Poll, by which the giving levels of different countries may be ranked (CAF 2014). The index is the mean of three forms of giving behaviour: the proportion of the country's population who donated money to a charity in the last month; the proportion who volunteered time to an organisation in the last month; and the proportion who helped a stranger or someone they did not know in the last month. The higher the giving index score is, the more charitable a nation.

Although rich countries dominate the top positions (and the UK is found within the top 10), there are also quite a few developing nations in the top 20 with 60-90% of the population demonstrating one or another form of giving behaviour in the last month. China however ranks amongst the least charitable nations of the world, with less than 10% of its population involved in volunteering, although even here well over 30% of the population helped a stranger in the last month (2014 data). The world giving index demonstrates just how widespread giving is as a social phenomenon.

In terms of the scope of giving in the UK, the 2014 World Giving Index reports that 74% of the UK population gave money in the last month; 29% volunteered and 61% helped a stranger (CAF 2014). CGAP (2013) data is more modest, but still puts the figure for participation in charitable giving at over 60% of the population. They say that the poorest 10% of the population who gave (and less of them do) donated on average 3.6% of their total spending whilst the richest 10% who donated gave 1.1% of their total spending. So although participation in giving is widespread, average donations as a percentage of total spending is tiny. CGAP puts the UK figure at around 0.4% of total spending. In terms of resources transferred then, giving hardly appears likely at first glance to be a catalyst for the transformation of society. However, giving merits a closer look, if only because its practice is such a widespread part of everyday behaviour.

Giving takes a wide range of forms: charitable, neighbourly, helping out in the family, formal, informal. Gifts of time and money are the easiest to quantify, but there are also less tangible transfers such as the transfer of information, giving way in traffic, not misusing work time, picking up the fallen bicycle, paying tax or a ticket when avoidance is a possibility, driving a fair rather than a hard bargain and so on: all these have an element of gift, in that someone other than the actor benefits and they are expressions of prosocial considerations, but they are harder gifts to track. However, worldwide shifts in giving over time as reported in the world giving index show that changes to the giving of time, the giving of money or giving help to a stranger tend to move in tandem. If one changes, the other is likely

to as well (CAF 2012). This fact opens up the possibility that a limited range of easy-to-measure giving might provide a proxy for giving into areas much harder to measure also. Other authors also mention this link between different forms of giving. Andreoni *et al*. 1996 and Bauer *et al*. 2012 show that in Europe and the USA time and monetary giving are positively linked, even though money may be substituted for time as the opportunity cost of giving time rises. List (2011) and Smith (1994) using US data show that most people who give, give to more than one cause. Bekkers and Wiepking (2007) say that giving time and giving money both appear to be driven by the same drivers. Binzel and Fehr (2013) show that those who give to friends also give to strangers. Putnam's chapter on giving finds that people who give generally give in all kinds of ways, and these are the involved, engaged, connected types (chapter 7, Putnam 2000). These are people who are in constructive relationships. My own empirical evidence in Part 2 suggests the same sort of patterns. The fact that people who invest in one area often invest in multiple areas suggests that by tracing at least *some* of the giving flows, we may have a proxy for the less tangible transfers too. Moreover Putnam's observations would suggest that the overlap between social drivers and giving is strong.

Bekkers and Wiepking (2007) have produced a comprehensive literature review of almost 500 studies with summarise the many influences that bring an individual to give. They categories these drivers as follows: (1) awareness of need; (2) solicitation (the power of ask); (3) costs and benefits; (4) reputation; (5) altruism; (6) psychological benefits; (7) values; and (8) efficacy (making a difference). It can be perceived that 'awareness of need' and 'solicitation' have to do with one's relational networks and the pressures arising from these connections. 'Costs and benefits' have to do with assets; their availability and the advantage of spending them in one way compared to another. 'Reputation' has to do with social norms and the incentives to give so as to be well regarded by others; it is the pressure of other people's reaction that provides the motive. 'Altruism', 'psychological benefits' and 'values' have to do with one's own attitudes to others, and the personal rewards of being true to one's convictions. The last driver of giving, 'efficacy,' has to do with the effectiveness of our attempts to pull together and make improvements happen, without which no one will be inclined to give their resources into a project. This cooperative element again reflects the state of the social environment.

Although many of these motivators overlap with each other and there are multiple ways in which they might be categorised, what clearly emerges is the link between social drivers and giving: the components of one are found to be exactly the drivers of the other. Networks, norms, attitudes and general efficacy are direct descriptors of social capital as laid out in Section 2.2, whilst the link between giving and assets again reflects the links between social capital and resources already described in Section 2.4. It would seem then from the description of social capital in chapter 2 and the description of generosity in the giving literature that higher levels of participation in giving (a resource flow appropriate to the civic sector) act as a barometer of civic sector contributions to social cohesion.

The following section, Section 3.2, considers these links in more detail. Section 3.3 then considers the links between giving, social cohesion and other resource flows.

3.2 The drivers of giving

In Chapter 2 we saw that the way people relate to one another hinges on social networks, social norms and private attitudes. In this section I describe how important each of these elements are in driving giving behaviours.

3.2.1 Social networks and their impact on giving

Handing over resources is a *personal* affair. People hardly disperse resources indiscriminately or at random; they give to specific persons or groups/organisations from whom they expect a certain return or else for registering a significant welfare gain to a chosen recipient (Pemberton 1995). This is why a person's connections have an important influence on their giving.

People tend to give more to those with whom they are in relational proximity (Baron 2010; Mayo and Tinsely 2009; Kramer 1991; Brewer 1979). They give to those they identify with or whose interests they identify with (Levy-Garboua *et al*. 2006; Durlauf and Fafchamps 2004). US data would suggest that poorer people tend to support poverty alleviation causes whilst the richer sections of the population tend to invest in charitable causes like education, healthcare and the arts which benefit the non-poor (Andreoni *et al*. 1996; Auten *et al*. 2000; Bauer *et al*. 2012; Center on Philanthropy at Indiana University 2007). This is again to suggest that people give most to what they know about and feel for, to what they are made aware of; to the causes their contacts are involved with and ask for support for (Bekkers and Weipking 2007).

Thus people who are actively engaged in bridging and bonding networks are the ones most likely to be volunteering their time for others (Putnam 2000). By 'bridging and bonding' networks we refer to extensive 'bridging' networks that cover a range of different social groups, as well as to relational 'bonds' that are deeply and reciprocally committed. The longevity of links also matters, which is why people who are established long term in one geographical area tend to get more involved with others than those who move from place to place (Schneider and Weber 2013). When a person's long term interests are wrapped up in a certain community of persons, then it makes sense to invest in those persons (Levy-Garboua *et al*. 2006; Fehr and Schmidt 2006; and Durlauf and Fafchamps 2004).

Notice that since people are networked, it is not necessary for everyone to know everyone in order for all members to benefit from a resource influx. Resources can be channelled through the web of contacts to reach the furthest member. This idea is reviewed (and contested!) under the heading of 'trickle-down' (Grant 1972). The objections highlight the point that people within the network will not

actually pass on benefits to 'outgroups' unless the network is characterized by prosocial norms and motivations.

3.2.2 Prosocial Attitudes and their impact on giving

Prosocial motivations, expressed in giving flows, may be self-centred or other-centred, as already outlined in Section 2.2.3. There are gains to be had from reciprocation, cooperation, solidarity and trust that are motivating even to the most selfish of persons. Moreover life is more secure if a fair share-out of resources is maintained; persons never know when they will end up in a dependent role themselves (Halpern 2005; Putnam 1993; Wilkinson and Pickett 2009). Social status and reputation gains along with the desire to avoid social sanctions or disapproval can also make it worth a selfish person's while to give (Kolm and Ythier 2006). Such sanctions also provide the assurance that cooperation from the majority is obtainable (Dasgupta 2009).

There is also an intrinsic element to social interaction; a 'giving' into the interests of the other person which can be neither imposed nor bought (Chapter by Kolm in Gui and Sugden 2005). The pro-socially motivated also forgive, and are thereby able to overcome a socially destructive action. It is in forgiveness that Rotemberg (2006) distinguishes altruism from reciprocity since forgiveness requires a higher motivation than 'fair play.' Konow (2010) divides these 'giving' or 'other-centred' motivations into four categories.

1. Altruism, in which a giver derives 'utility' or 'satisfaction' simply from seeing the recipient better off;
2. Inequality aversion, in which the giver experiences disutility from inequality, and feels the urge therefore to redistribute resources to the disadvantaged;
3. Impure altruism, in which utility is partly gained from the wellbeing of the receiver, but is also gained from the feeling of having personally done the right thing/been a good person (termed 'warm glow' by Andreoni 1995);
4. Conditional altruism, which incorporates the above plus the pressures and incentives provided by social norms; people are willing to give where assured that they will receive treatment of like kind from others.

Sacrificial giving then is not irrational, because individuals tend to consider the utility maximization of themselves *and others*, not just themselves alone. People may be happy to see someone they care about doing well, or unhappy to witness suffering. On top of this, 'warm-glow' has such a powerful and immediate effect that spending money on others can actually make one happier than spending money on oneself (Aknin *et al*. 2013; Dunn 2008; Kolm and Ythier 2006). There is a sense of gratification in being valuable to someone else; in being a person who 'does the right thing' and who can therefore be accurately defined (whether in one's own eyes or in the eyes of others) as a person of value. The recipient gains from the resource transfer but the giver gains most on the relational front

since giving speaks of one's position in a relationship. So, some utility may only be generated through interpersonal relationships. Time and money shared or given in expression and consolidation of that relationship has implications that are linked to increases in a person's sense of wellbeing (Aked *et al*. 2008; Bartolini and Sarracino 2014; see chapter 1).

Inequality aversion motivates the rich to redistribute resources to the disadvantaged (Fehr and Schmidt 1999). Indeed, Fong, Bowles and Gintis (2006) as well as Blanchet (2006) show that the least vulnerable /most powerful groups are often more pro-redistribution than other groups. They argue how this motivation cannot therefore be based on self-interest alone, not even enlightened self-interest; otherwise the least vulnerable would be the least interested in redistribution. Linked to this we have social comparisons. Social comparisons make those who are disadvantaged feel unhappy to a greater extent than their lack of resources would merit. The negative feeling of being at the bottom of the pile adds social/relational stresses of its own (Wilkinson and Pickett 2009; Bartolini *et al*. 2014), and actually demotivates this category of persons from giving (Derin-Gure and Uler 2010; Yamamura 2012a).

Not all motivations to give can be rationalized from the preceding individual decision-making perspective however (Bardsley 2000).[3] Sugden (1984) introduces how people's actions may further

[3] Bardsley explains that altruistic models include third party welfare into individual utility. However the third party's welfare is a 'public good' in that it is dependent on the input of multiple persons. An example of incorrect prediction is the assumption that one person increasing donations to this commonly consumed public good should reduce the requirements of others to contribute (one donation 'crowds out' another). In reality, 'crowding in' is more likely to occur, under the non-individualistic logic that 'if you do your bit, I will do mine'. Moreover economic models might predict a higher proportion of income being donated to a public good as riches increase, since diminishing marginal returns of utility to consumption should dictate that increases to one's private consumption becomes less attractive the more one has already, lowering the cost of giving, whilst at the same time altruism or inequality aversion should provide the biggest urge to give amongst those who have the most. In reality however, richer individuals tend to behave more individualistically, giving proportionally less to charity than their lower-income counterparts (see section 3.3.1). Furthermore in both of the preceding scenario's we know that giving is responsive to income, but we can see that giving responds differently depending on the way in which that income is gained. If income rises because a person is endowed with more or, even more so, if that person *earns* more, then the individual generally chooses to *reduce* the proportion of her income that she gives away. However if income rises because others are contributing more to a commonly consumed public good, then that individual tends to *increase* the proportion of income given away. This dual income expansion path where donation to a public good is concerned is also at odds with outcome-oriented microeconomic theory, which only allows for one expansion path. Even in one-shot experimental games, outcomes tend to be a lot more collaborative than the outcomes that we might expected from independently thinking decision-makers. Standard economic theory clearly does not explain the full effect of social considerations on decision-making. Negotiation and team-thinking both change outcomes in ways that individualistically oriented economic theory cannot account for.

be guided by adherence to morals and values that are established by a particular identity *group* one identifies with. Beyond this, Bardsley (2000) talks of 'team thinking,' referring to individuals behaving in a manner optimal to their *team's* wellbeing rather than in a manner optimizing only their own wellbeing. Team thinking is conditional on the assurance that the other members of the group are on the whole doing likewise. Thus people sometimes choose to act as one part of 'us' and not as (conform economic theory) individuals who regard other individuals only as constraints to their options or else as means to establish their own ends with appropriate strategic manoeuvring. What exactly constitutes 'us' (the correct unit for whose benefit an individual works) introduces the wider social capital literature on social networks, group identity, conformism and so on (Wit and Wilke 1992; Lalonde and Silverman 1994; Levy-Garboua *et al*. 2006; Durlauf and Fafchamps 2004; Baron 2010; Mayo *et al*. 2009; Kramer 1991; Brewer 1979; Van Lange and Joireman 2008). The extent to which people share concern for one another's welfare in a relationship depends very much on the specific context of that relationship: In some relationships it is more appropriate to share, and in others it is more appropriate to compete. Cognitive processes, reflected in resource flows, are able to adapt to whatever is the relational context of the moment (DeScioli and Krishna 2013; Bowles 2008; Brewer and Kramer 1986; Fiske 1992). Given this flexibility, Putnam (2015) is of the view that widening the range of people included in the most sharing sense of 'us' is key to increasing social capital. The more people and their welfare that get included into each individual's decision making process, the less likely it is that the gaps widen between the 'haves' and the 'have-nots.' All this overlaps with the discussion in Section 1.5 in which it was said that people might value relationships not only for what they get out of them, but because they have intrinsic value in themselves.

The decision to give is just one expression of the way in which prosocial motivation changes the behaviour of an individual towards others in their community. However it provides us with a measurable proxy for the whole. I propose that these prosocial, giving behaviours arise from a whole mix of social drivers, both structural and cognitive, and that they impact social cohesion. These structural and cognitive elements may be interacting as people interact. A cohesive social environment will stimulate the attitudes of an individual to become more giving, but also the prosocial, giving attitudes and subsequent giving behaviours of the individual will contribute to a more cohesive social environment.

3.2.3 Social norms and their impact on giving

Social norms that shape our social environment matter: the choices people make about their use of time and money are closely linked to the ethics of the communities in which they are involved (Barnett *et al*. 2006; Schokkaert 2006; Ythier 2006; Sacco *et al*. 2006). Andreoni and Scholtz (1998) find that if one's social reference space increases giving by 10%, one's own giving increases by 2-3%.

Overall, the biggest two normative ('norm'-shaping) influences on giving are education and religion. Both of these affect the way a person thinks and is expected to interact with others. English and Ray (2011) compile evidence from the Gallup world poll showing that worldwide, 21% of religious people volunteered their time to an organisation, whilst only 13% of non-religious people did (Table 3.1).

	Is religion an important part of your daily life?	
	Yes	**No**
Donated money	33%	21%
Volunteered time	21%	13%
Helped a stranger	47%	41%
Civic engagement score (an average of the 3 responses above)	**34**	**25**

Table 3.1 Religion correlated to increased giving levels worldwide.

Source: English and Ray, 2011 using Gallup data based on 130 countries surveyed between 2009 and 2010. Population projected weights used for this analysis

Bauer *et al*. (2012) also find from European data that whether or not a person is giving to a Christian group is a significant predictor of whether that person will be involved in other groups besides. Even in our own small survey of Berkshire Philanthropists, we found that those who gave to collections in a place of worship out-gave the average irreligious giver in every area except blood donations (Table 3.2). The religious were motivated to give to more causes, and they were found to give the biggest sums also.

	Percentage of people who gave in listed ways when *not* involved in religious giving	Percentage of people who gave in listed ways when involved in religious giving
blood	9	7
raffle	60	69
sponsor	55	83
cash in collection tin	60	66
regular debits	42	69
cheque/card	28	55
charity envelope	11	38
event/ shop	51	72
gifts in kind	60	79
All religious donors in our sample gave to at least one other cause, which was not the case with non-religious givers. This implies that religious people tend to be both generous and wide in their giving interests.		

Table 3.2 Religion correlated to increased giving levels in Berkshire.

Source: Zischka *et al.* 2014: based on 120 interviewees

Education is the other big normative-based motivator. Education provides networking opportunities, and it also gives people the tools to cooperate more efficiently (Krishna 2002; Durlauf and Fafchamps 2004). The way it is done also matters; stimulating cooperation in the classroom has an effect on the

development of prosocial attitudes (Algan *et al*. 2013). Moreover education is in itself a gift of information from one who has more to one who has less; a gift rarely paid for in full by the beneficiary, but which increases what that beneficiary can offer to others and the motivations to reciprocate in kind.

The standards and expectations of any group motivate people to give even when they have no internal motivation of their own. Part of that motivation is a desire to boost the feeling of one's own moral self-worth or social status (Branas-Garza *et al*. 2012; Elster 2006). Branas-Gerza *et al*. found that after telling a negative story relevant to themselves, agents gave a bigger sum to charity than they did after telling a positive story about themselves. They found evidence that people give in order to offset their bad deeds or, if their 'account' is good, they feel they can engage in dubious behaviour. This motivation depends on the *socially acceptable* degree of other-centred behaviour. It is conformity to expectations, the importance of which can hardly be overemphasised. Douglas (1996) writes how the way people handle their resources reflects social obligations and the form of society. In terms of giving, she emphasises the strict social constraints that govern even the detail of exactly *what* is appropriate to give in each social context. Akerlof and Kranton (2000) and Della Vigna *et al* (2012) show that individual utility is partly determined by conformation to social norms. Likewise Bowles (2008), Sargeant and Shang (2010) and Malmendier *et al.* (2014) agree that the approbation of other people is a key motivator of human behaviour. Thus even those who feel very little personal desire to give if left to themselves will be constrained to conform to the norms set by the majority. Our tendency to conform to social norms may be manipulated to negative as well as to positive affect, but in the context of giving it means that a few 'other-regarding' trail-blazers are able to positively influence the behaviour of even the self-centred persons of a group, just by the way they lead and the values they uphold (Kolm 2006; Fehr and Schmidt 2006). Whilst formal rules and sanctions do shape the social environment and may effectively limit opportunism which holds people back, it is informal rules and sanctions that are particularly important to a non-contractable behaviour like giving: duty, habit, tradition, peer feedback and reputation all influence individual decisions about giving levels (Kolm 2006).

This thesis draws out of this literature the idea that if giving is considered to be a praiseworthy deed, then people will feel good about themselves before others when they give, and their reputation will be enhanced. At the other extreme, if opportunists are admired as 'survivors' and givers disregarded as 'suckers,' then these huge social rewards will all be lost. Since the social attitude towards giving influences the motivation of the individual, it is worth taking pains to ensure that giving behaviours are recognized, and are valued by society as a positive personal attribute or virtue. As was shown in Section 1.4, to *dis-consider* social motivations and instead to view life through an individualistic, material frame, is to crowd out prosocial values. The social norms of society are important then; they can influence giving either positively or negatively, depending on their nature.

Where social pressures end and internal motivations begin is hard to distinguish in practice. Despite these difficulties people do, to a greater or lesser degree and for whatever reason, take others into consideration when they make decisions (Gui and Sugden 2010). It is helpful to differentiate the common social environment with its cohesive elements from the individual and her private motivations to give, since my analysis of Part 2 tests the theory that these are separate and significant influences, and that the interaction between the two adds to or detracts from social cohesion (see Section 3.4).

Extended, one-sided giving tends to produce outcomes dis-favourable to the giver (Blanchet 2006) and there is no value in being taken advantage of, however considerate the actor is of others. Thus people who have no assurance that the other party will eventually do their part tend to withdraw from doing theirs (Fong *et al*. 2006; Arrondel and Masson 2006; Fehr and Schmidt 2006). They may even punish offenders to their own personal cost and for no direct reward, and because these punishments have the effect of maintaining solidarity and cooperation, even costly punishments may be considered a prosocial action (Elster 2006; Rotemberg 2006; Fong *et al.* 2006). However if the actions of others cannot be controlled and the intentions of those persons is known by other-regarding agents to be hostile rather than equally other-regarding, then cooperation and resource transfer will be reduced. Thus the degree to which a community of people may reciprocally give is conditional on the individual giving behaviour of each of the group members, with its members adjusting their levels of giving and cooperation to come in line with their experience of how other people have acted in the last time period. So then, social pressures and incentives certainly *influence* whether or not people give to others, but there remains the element of individual choice that was discussed in Section 3.2.3.

3.3 The links between assets, giving and civic sector relations

I have proposed that social cohesion is linked to civic sector giving and yet both social cohesion and the giving of resources are also linked to the availability and distribution of resources in general. This section examines these linkages and considers whether they negate the hypothesis that civic sector pro-sociality may be measured by giving flows and makes a unique contribution to social cohesion. First of all I consider how assets affect giving.

3.3.1 Resources and giving

Resource constraints limit giving. People cannot give what they do not have. Thus the biggest givers in OECD countries are those around middle age who have savings and are comparatively time-rich (The Center on Philanthropy at Indiana University in the USA 2007; Bauer *et al.* 2012 and Mayo and Tinsley 2009). Moreover giving is also based on awareness of need (Bekkers and Wiepking 2007) and on a desire to correct a perceived imbalance in the general distribution of resources (Mayo and Tinsley

2009; Fehr and Schmidt 1999; Ogawa *et al*. 2012), both of which motivate giving from those getting richer to those left behind.

In the UK then, the poorest sectors of society are least likely to make a charitable donation, whilst the richest 50% of households gave 92% of the total money donated (CGAP 2013). The same phenomenon is seen in time donations. Lindsey (2012), comparing two neighbouring communities, found that four times as many charities operated in the affluent community compared to the more deprived one. In addition, most of the charities in the affluent community were run by actively involved local volunteers, whilst those in the deprived communities were rather run by outsiders. Moreover aspirational people in the more deprived community preferred to move out rather than to invest in change. Chowdhury and Jeon (2014) find in a dictator game (see Section 1.5.1) that the bigger the show-up payment, the more generous people tend to be with the way they handle subsequent resources. They noted how both richer individuals and richer countries tend to give more than their poorer counterparts. Likewise Holland *et al*. (2012) found that sealed and stamped letters deliberately 'lost' in various neighbourhoods of London were more likely to be put into a letterbox in the richer areas than the poorer areas.

All this begs a question: are communities materially deprived because they do not have the trust and social cohesion to pull together or to mobilize cooperative action for a better social environment attractive to rich and progressive personages, or is it the material poverty which denies people the capacity and power to get involved, in which case an injection of resources would bring about a change in investment levels into community life? And on an individual level, do the poor give less because of the already imbalanced resource distribution and/or because of lack of resources to give, or are they poor because they are not part of networks characterised by giving and its complimentary forms of cooperation? Evidence can be found to support both points of view, and given the interactive, evolutionary nature of social cohesion, along with its dependence on such a complex mix of factors, this thesis would argue that causality runs both ways (case studies such as Grant 2001 for example highlight how the relationship between social structures and access to resources are self-reinforcing. I consider the issue of causality myself in more depth in Part 2).

Although richer communities tend to give more, it is clearly *not* the case that people who get rich *automatically* become more generous. Mayo and Tinsley (2009) show that 80% of contributions by the mega rich in the US come from 5% of the households, and that the remaining 95% of those households give proportionally less of their income to charity than their lower income counterparts. Auten and Rudney (1990) and also Breeze (2006) using UK data show that the median propensity to give decreases as income rises. It may be inferred that giving requires both the resources to give *and* the motivation; motivation based on a complex social capital 'stock' (I go on to demonstrate this formally via a controlled experiment, presented in Chapter 5.

So, giving is driven by relational networks, social norms and private attitudes (as shown in Section 3.2) but is constrained by resource availability accompanied by a straightforward cost-benefit analysis when faced with need (Bekkers and Wiepking 2007; Sargeant and Shang 2010). The *distribution* of resources is more of an integral part of the social environment however. It affects the relative power and position of people within a social structure, and thereby has a direct impact on the networks, norms and attitudes that drive prosocial behaviours (Ellul *et al*. 1984; Wilkinson and Pickett 2009).

But if resource distribution is so essential, does this mean that a move towards equality (perhaps state-led measures to limit needs) nullifies any necessity for civic sector contributions to social cohesion? I have no argument with the idea that interactions within the state and market sectors have a significant impact on social cohesion. The question is whether the additional impact of the civic sector is unique and significant, and whether giving flows are a useful measure of that contribution. It could be that state led redistribution crowds out the motivation of the individual to give privately, even though there might be a latent by therefore unmeasurable willingness to give should the need arise. These complications may lead us to attribute higher levels of 'civic pro-sociality' to unfair societies or to societies in crisis, just because they have more of a reason to 'give' than do societies characterised by equality. In this case, measuring giving might to some extent be measuring need/problems, not civic sector pro-sociality. So if giving is found to be suppressed in the absence of need, then my measure has no value as a predictor of social cohesion. This potential caveat is considered in the next section.

3.3.2 State-led equality and its effect on giving

People from Scandinavian countries, renowned for their equality and their overall cohesion and wellbeing, do not top the world giving charts. However, they are certainly found to be at the higher end of the 'private giving' ranking. In the 2014 World Giving Index (proportion of the population giving time, giving money or helping a stranger) Denmark ranks 18th, Sweden 40th and Finland 25th out of 135 countries Norway had no data this year, but ranked 11th in the 2013 report. Giving and equality do not appear to be mutually exclusive, but neither are they irrevocably bound together.

Fig 3.1 also shows the lack of obvious relationship between private giving and equality in OECD countries. It cannot be argued from this data that people give less personally when incomes are more equal. If anything the reverse; the most unequal countries also gave the least. Fig.3.2 shows a similar picture: higher levels of government social spending cannot be said to automatically exclude private giving; there is rather a correlation (which is statistically significant) to the contrary.

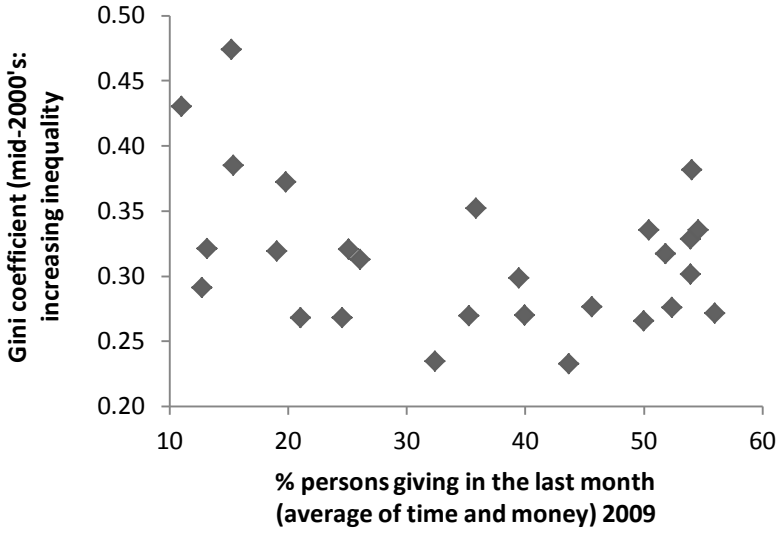


Fig.3.1 Correlation between giving and inequality
Source: OECD i-library and Gallup data. Detail of sources in Appendix 9A

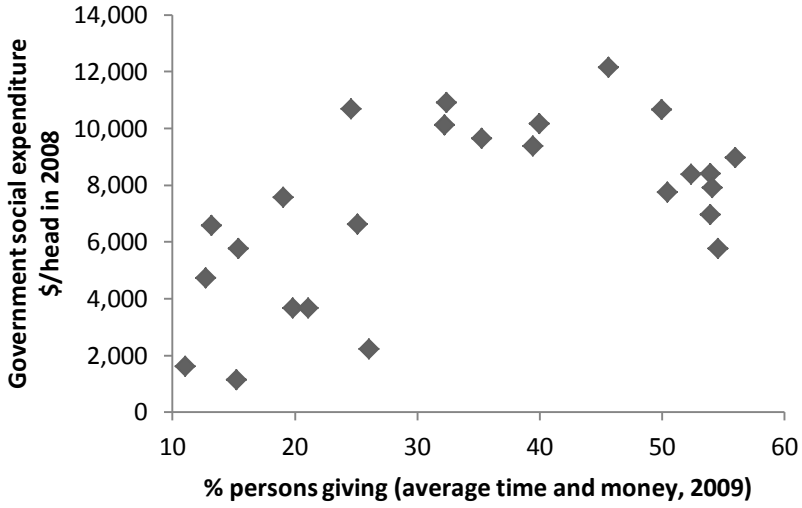


Fig.3.2 Correlation between giving and government social expenditure per head
Source: OECD i-library and Gallup data. Detail of sources in Appendix 9A

Having said this, there is no evidence that increasing government spending automatically increases either participation in giving behaviours or equality: CAF (2012) reports a decline in private philanthropy throughout the OECD at a time when government expenditure is on the increase, and the OECD i-library (2011) reports the lack of relationships between government spending and equality. Government spending is clearly not the only issue of importance in how the society evolves. Whilst nothing can be concluded from this data about the role of civic sector giving, what we can affirm is that giving behaviours are not necessarily crowded out by state activity and that giving does not cease as needs lessen.

Whilst *involvement* in giving may not be affected by equality, lab experiment data would suggest that the *size* of voluntary contributions to others *do* decrease as income equalizes. This finding arises from playing the dictator game, in which a dictator is given a free choice regarding what share of a sum of money to give to a passive recipient, and what share to keep. If the recipient already has an endowment, the amount allocated by the dictator is found to fall (Bolton *et al*. 1998; Branas-Garza 2006; Konow 2010; Engel 2011).

Korenok *et al*. (2012) finds whether inequality is extreme or minor however, there is surprisingly little variation in the likelihood of making a positive pass (giving *something* rather than *nothing*). In Korenok *et al*.'s lab-experiment, the endowment of the dictator was held constant, but recipient's endowment varied from zero to that of the dictator. As noted by others, dictators were found to steadily decrease the amount of money passed to the recipients, as the recipients' endowment levelled with their own. Therefore, as inequality reduces, giving levels reduce. However the dictator still *gave*, despite having the option to give nothing. Table 3.3 shows that, until the point of perfect equality, most dictators did not stop passing money (giving) to the recipient.

Recipients initial endowment	$0	$2	$4	$6
% positive pass from dictators endowment of $6	79%	82%	65%	26%
Recipients initial endowment	$0	$4	$8	$12
% positive pass from dictators endowment of $12	82%	82%	79%	24%

Table 3.3 Inequality and the likelihood of giving

This suggests that although inequality/need might stimulate giving people to increase the sums they give, it does not necessarily affect who is a 'giver' and who is not. If this is the case, then how *much* people give is influenced both by pro-sociality and the extent of the need, but *whether or* not they give depends only on pro-sociality. Whether or not people give then could be the more useful proxy of pro-sociality.

These lab experiments are interesting, but they refer only to transfers based on a response to unequal endowments; they do not account for reciprocal giving. Reciprocal giving is an important feature of social structures such that even in conditions of perfect equality, people still give and take as an expression of their relationships with others (in Section 3.3.1 for example, we saw that it was the communities *less* driven by need that were characterized by self-organisation and voluntary involvement, not the more needy communities). For this reason it is helpful to look beyond lab-generated results to live social environments.

Alesina and La Ferrara (2000) used US data to look at group participation (time given to relational activities), and found that groups were more likely to form and participation increase where a community was homogenous both in terms of race *and income*. People preferred to cooperate with

people like themselves, and if they could not exclude others, they would not cooperate. This would suggest that equality can actually assist giving, not destroy it.

Group participation is predominantly about reciprocal giving within the community, but homogeneity of incomes also affected the extent of giving to worse off people outside of one's community (Payne and Smith 2014). Payne and Smith considered data from Canada collected between 1991 and 2006. Their aim was to determine how income inequality affected charitable giving. The giving data was based on tax reclaimed donations. The proportion of the population making charitable donations was considered, as well as the sums given.

As a general trend, income inequality increased in Canada over the period 1991-2006 by 15%. The fraction of households donating fell 15% from 52% to 44%, although the average donation size made by those who *did* donate increased 76%. Overall then, the levels of donations increased, but this money was raised by a smaller number of people. Moreover, this growth in donations originated mainly from the wealthier neighbourhoods, with lower and middle income households giving the same or less. All types of wealth bracket became less likely to make a donation in the first place.

It was found that the rise in inequality simulated an increase in the sums of money given. However, giving was particularly stimulated if inequality was *not* the norm. Thus it was found that, if the wider district had below average levels of inequality, then an increase in inequality by 16% stimulated an increase in donations by 6.2%. However, if the wider district was characterised by above average levels of inequality, then a further increase in inequality by 16% stimulated only a 2.1% increase in donations. So, the size of donations is higher in response to inequality if equality is the norm.

Regarding the proportion of the population making a donation, a rise in inequality was marked by a *decrease* in the number of persons making a donation. This relationship was statistically significant, and was especially pronounced in areas that were already highly unequal. What mattered was local inequality: the proportion of persons making a donation was not affected by rises in inequality *outside* of the local community. The worst damage occurred where there is a generally unequal society with increasing localised inequalities. These geographical interactions are very important, as is also confirmed by Wei *et al*. (2014): What matters is if inequality is all over (mixed people living together: Scenario A) or segregation of communities into richer and poorer areas: Scenario B. People were more likely to quit giving as inequality increased in Scenario A.

All this appears to support the evidence I also present in chapter 5: that (1) cohesive relationships are necessary to stimulate giving to the need of others, and (2) that relationships are distanced by inequality. This would explain why giving is subdued in a highly unequal environment. Inequality *does* stimulate some rich people to give more money. However, it rather *reduces* the proportion of the total population involved in giving. We see then that the proportion of the population donating appears

to reflect the health of the relationships between people better than how much money is donated in total.

To add support to this conclusion, we can also draw from Derin-Gure and Uler (2010) and Yamamura (2012a) who observe that inequality aversion actually *demotivates* the poor from giving in an unequal society. Thus resourcing the poor by increasing equality allows a greater segment of the population to give; it eases financial restrictions; it provides common ground as a basis for reciprocal exchange; and it also stimulates giving behaviours by taking away that dis-empowering feeling of being at the bottom of the heap (Wilkinson and Pickett 2009; we also saw in Chapter 1 how equality and its associated abeyance of social comparisons can free people to concern themselves with more relational matters). Schokkaert 2006 concludes in a review of a wide range of literature that crowding out theory is rejected. Government redistribution and other measures to increase equality do not stop people from giving privately, even if it alters the sums given. Indeed, the evidence would rather point towards crowding in in cases where the government provides some of its services through the charity sector (Schiff 1985; Khanna *et al.* 1995; Okten and Weisbrod 2000).

Crowding in is not inevitable however. We saw in Figure 3.1 that equality was not strongly related to giving, suggesting that government fostered equality is not always synonymous with the civic sector's contribution to social cohesion. Where individual engagement and the sense of private responsibility is dissipated by a state take-over of care-needs, it is likely that relationships between people will become more distanced for all they might be more equal. Even Adam Smith made a comment to this effect, saying that although government led social nets have value, the establishment on 'rights' detracts from the voluntary aspect, and thereby undermines the fabric of society (Birch 1998). This raises the idea of 'latent' relationships through which a favour *could* be asked but never is, since everyone is 'self-sufficient' or else has been taken care of already. Intuitively, it seems unlikely that such relationships between people will be as vibrant as those relationships that are characterised by *actual* give and take. One's best relationships tend to be with persons one has invested a lot of time and money into, not with the self-sufficient. This may be why a crisis is often seen to bring people together: the drawing together in response to need (and the reflection of this in an increase of give-and-take) has a feel-good factor to it despite the negativity of the crisis itself. There is a personal element to giving, especially when it comes to giving time, and this element cannot be replaced by government expenditures. Relationships are risky (Cox *et al.* 2014) and restrictive (Grootaert and Van Bastalaer 2002) and yet loving others and being loved is one of the greatest gifts of life (cpwlab n.d.). To insulate ourselves economically and institutionally from the risky side of relationships has certain advantages, but not where we become insulated to the extent that we sterilise ourselves from the joys and intrinsic rewards of human interaction, nor to the extent that our thinking only extends as far as our own interests, losing sight of our connectedness and the interests of the whole.

So then, equalizing policies may or may not crowd out individual action on behalf of others. On the positive side, this section has shown that assets and their distribution make up part of the 'social environment,' with equality drawing people together and releasing a greater proportion of the population into getting involved in prosocial activities. Likewise public support for pro-equality state interventions and consideration for others are complements (Yamamura 2012a; 2012b; Fong *et al*. 2006), such that the preferences people have regarding equality may be revealed to some extent in what they do with the resources under their *own* control. In both these ways, state-enforced equality and giving go together. We also saw in this section that the giving behaviours of unequal societies might involve greater sums of money because of the greater needs, but giving tends to become more concentrated as a positive relational environment is compromised. Giving does not automatically complement state-enforced equality however. If all private sense of responsibility towards others is handed over to the state, then the quality of inter-personal relationships will likewise be compromised and giving will fall.

Whether a society is equal or not then, tracing what people do with their own private resources and the extent to which they use them to interact with others is going to provide us with information about the civic sector's contribution to social cohesion. The proportion of people involved in giving was found to be more useful as an indicator of civic sector pro-sociality than the total amount given, since the latter may be highly concentrated amongst a few, and will fluctuate depending on the level of need.

3.4 New conceptual framework: Measuring civic sector pro-sociality by giving flows

We saw in Section 3.1 that the sums people give are not hugely significant compared to the size of the economy, even though a large proportion of the population participate in giving. This participation in giving has a greater significance than the actual money transferred however; a significance which lies principally in its relation to civic sector pro-sociality. If people are using their own resources in social/relational activities, it reveals the existence of social ties which are bringing people to act in a prosocial manner, factoring other people into their decision-making process, and this is expected to change the character of society.

The forms of giving most appropriate to the measurement of civic sector pro-sociality are examined more fully in Chapter 6, but so far we see that the proportion of people involved in giving in a community is a better metric of pro-sociality than total sums given from that community. This is because the *quantity* of time and money given away is confused by the influence of need as well as the influence of pro-sociality itself. Giving in a society already characterized by taxation and redistribution or other pro-equality mechanisms might not manifest itself in such large, unreciprocated transfers of resources, simply because the needs are not so great. However the unique contribution of the civic sector to that social cohesion could still be evidenced by the how widespread giving behaviours are.

The giving literature to date has principally been pursued by charities who want to raise donations, or by happiness researchers who want to see how to strategically improve wellbeing. This literature review has linked the giving literature to literature about relationships between people, noting that giving flows are more likely to exist where civic sector relations are characterised by pro-sociality. This connection is of interest to policy makers and development agents wanting to monitor relational dynamics.

It is to be expected (and I test the hypothesis in Part 2), that prosocial relations within the civic sector, proxied by giving flows, interact with the health of the wider social environment, including with social cohesion and more desirable development outcomes. Note however that the trust and collaboration associated with social capital are communal goods, whilst individual prosocial motivations are private goods. These may interact with one another, and private giving behaviours may depend on them both, but any hypothesis made needs to be very clear about what is being measured and the linkages between drivers and outcomes. I propose testing the linkages in Fig.3.3.

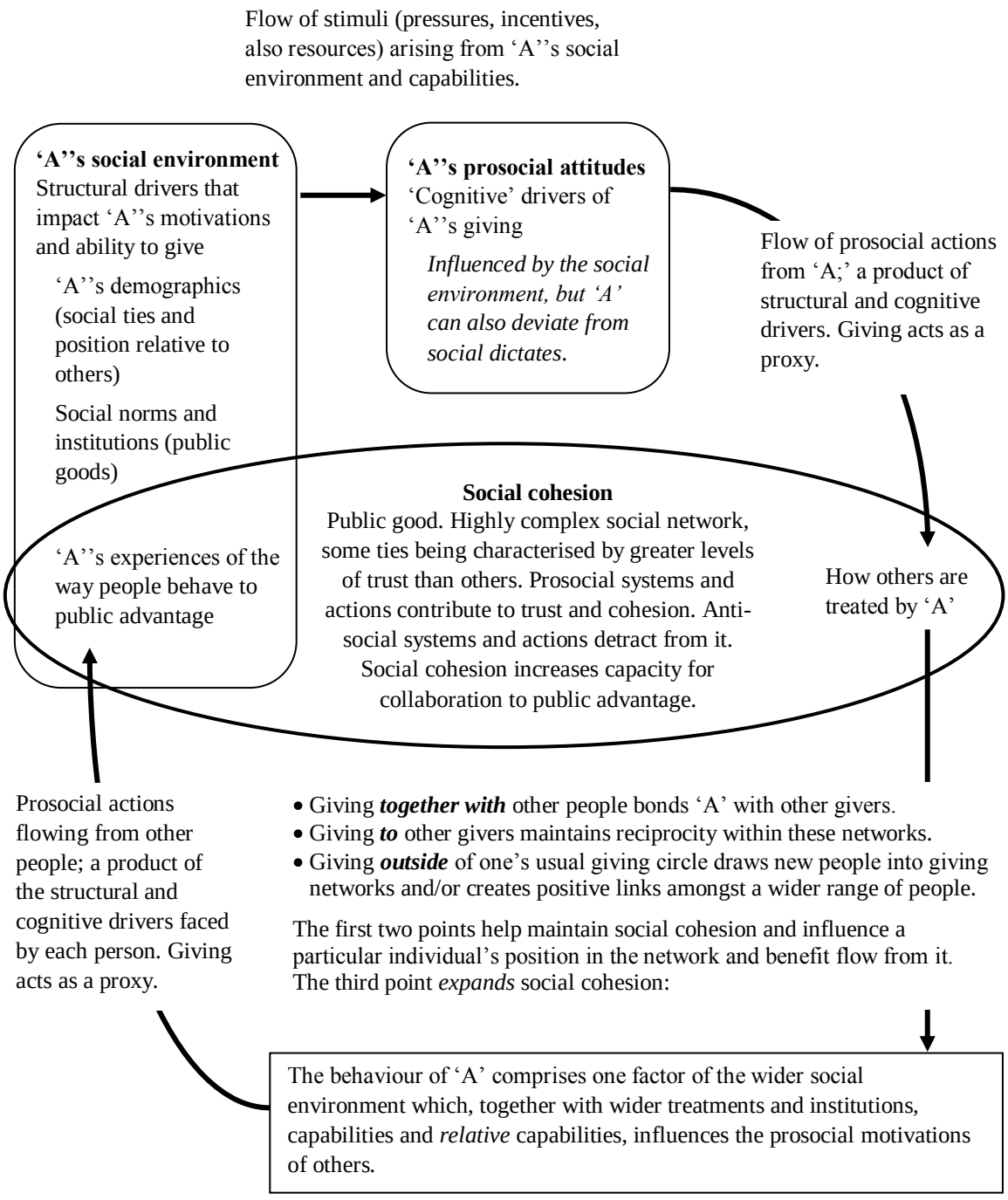


Fig.3.3: Prosocial behaviours which cause social cohesion to change over time

In Fig.3.3, prosocial attitudes are partly shaped by the social environment (a person's circumstances relative to others, the connections she has with others, the norms of that environment and the trust the individual has in others, the latter being based on how prosocial the systems and actions of other people are). But an individual also retains some capacity to act or react within those circumstances in a prosocial (or antisocial) manner *independently* of her social environment. Her decision, reflected in prosocial behaviours for which giving is a proxy, goes on to affect her social circle in some small way. Indeed, her actions comprise one small part of the wider social environment, and will influence who

she is connected to (her place in that environment) and the type of treatment she eventually receives back. Where greater numbers of people are drawn into giving networks, social cohesion expands. This dynamic may help us to understand how social cohesion is influenced by the civic sector over time. A cycle of treatment, response and counter-response is formed, with trust levels improving or degenerating depending on the nature of that interaction.

Thus giving, acting as a proxy for prosocial behaviour within the civic sector, represents individual contributions within the civic sector to jointly held social cohesion. I propose that not only giving matters, but also who people give to; whether they only give to those in their close social circle (which maintains pockets of social cohesion), or also to those outside of it (which generalises social cohesion). Inclusion of the marginalised into giving networks therefore becomes important to overall social cohesion, and should be included in any measure of giving that is meant to represent pro-sociality (Chapter 6 researches the components of giving most important to social cohesion).

Having clarified the individual and communal elements of the model, we can now re-express Fig.3.3 with the prosocial motivations of individuals and the social environment of all shown in aggregate (Fig.3.4).

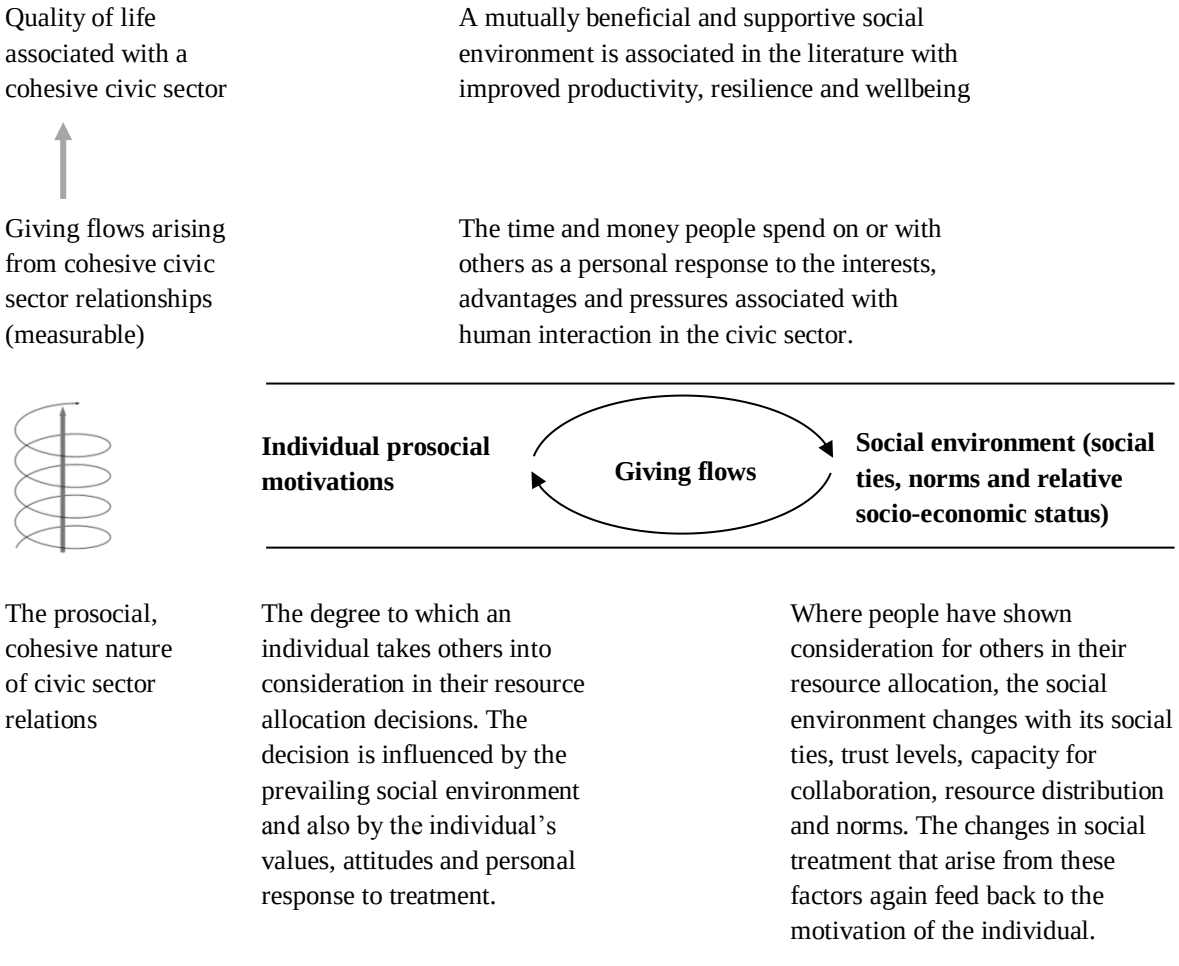


Fig.3.4 Cohesive relationships in the civic sector as seen through the prism of giving flows

Again, it can be seen that the heart of prosocial, cohesive relations involves individual prosocial motivations and the quality of their wider social environment. When individuals act in another's interests as well as their own, communal trust is built with all its associated benefits. When individuals act opportunistically, communal trust is destroyed. Individual attitudes are partly responsive to the relational environment. However individuals also have a choice to act for the good or bad of others independently of their social environment. Rules and sanctions act as a constraint to behaviour, but cannot cover every eventuality; people may cooperate with the system or act in ways that undermine it, or at least alter its norms. Thus prosocial or antisocial behaviours have ripple effects which potentially impact trust and the capacity for collaboration to public advantage. The nature of the interaction can be evaluated by monitoring the pattern of resource flows, represented by the central arrows.

We have seen that the factors that bring a person to act pro-socially are many and varied. To unpick those drivers is a highly complex task. However, in terms of aggregate impact, the social preferences are revealed in what a person does with real, tangible resources. This is why giving flows are so interesting to us; they act as a barometer of pro-sociality, which is an essential ingredient of social cohesion. So then, the approach not only sheds light on how the civic sector might contribute to social cohesion and health, it also bypasses many measurement complexities by targeting the flow to and from social cohesion rather than the stock itself; time and money gifts being a lot easier to quantify than the sum of norms, networks and attitudes.

Because this thesis views interpersonal relationships through the prism of resource flows, I define this prosocial element in terms of the level of consideration one party shows for another in their resource allocation decisions. Giving one's own resources away to someone else at personal cost is one, measurable way in which this consideration for others is revealed within the civic sector. It is not the only expression of consideration for others; for example this consideration will influence the norms by which a group collaborates on a much wider scale and many other resource flows that go with that. But giving is seen as a useful proxy also for the less easy-to-measure expressions of civic sector pro-sociality, and this is because of its peculiar dependence on the social drivers that are common to all. Gifts may neither be bought nor extracted; they depend exactly on those motivators we are attempting to gauge the nature of. Thus the giving of measurable resources like time and money are proposed as a proxy for a much wider set of prosocial behaviours within the civic sector.

If measured individually, giving represents individual pro-sociality within the civic sector. If instead we measure the proportion of a region's population who are involved in giving behaviours, then we represent the prosocial character of civic sector relationships in that *region* (see Chapter 6). This 'pro-sociality' is expected to influence social cohesion over time, and social cohesion is expected to be beneficial to society. These benefits may be traced in the way that prosocial behaviours (giving) impacts indicators of welfare like life-satisfaction, wealth, health, trust, crime and deprivation levels.

With a measure of civic sector pro-sociality it becomes easier for governments and development agents to monitor whether their policy interventions enhance or detract from this valuable asset.

Changes in the direction of giving may also shed light on the winners and losers of any socio-economic shift. For this reason I am interested in reviewing not only whether or not people give, but also who they give to. Measuring the existence and direction of giving also provides decision-makers with information on the strengths and weaknesses of civic sector relationships which may affect the success of their interventions. Where people give outside of their regular social circle, it is a sign that their concern for others extends beyond their close identity group. This is an indicator that the group's cooperative strength is less likely to be used to the detriment of those outside of the group; again important for social cohesion and a generalization of trust.

And beyond all this, the 'giving' approach shifts the focus of attention from 'what we are getting out of society for ourselves' to 'what we are contributing to the benefit of others.' On a communal level these are in fact two sides of exactly the same coin, but the shift of focus at the individual level from extraction to input is necessary if pro-sociality and trust is to be built into interpersonal connections. Measuring civic sector cohesion by giving flows may therefore be prescriptive; it puts people in mind of how they treat others, which is how social cohesion can be improved.

3.4.1 Strategy for testing this conceptual framework

My testing of the model in Part 2 is mapped out in Fig.3.5. This figure shows the same model with its various linkages as was described in Fig.3.3. Each part of the model, each linkage, requires its own test, and so the model is overlaid with notes on the four areas requiring testing, each corresponding to one chapter of empirical analysis in Part 2.

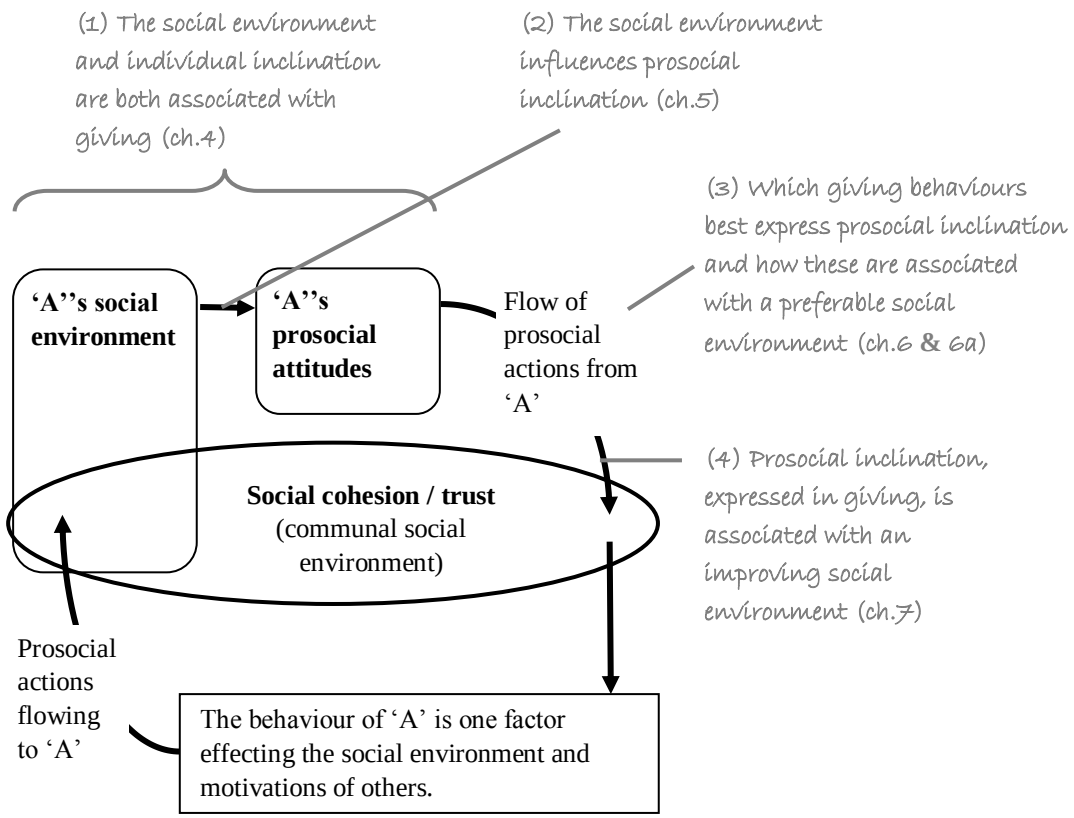


Fig.3.5 Testing the four parts of the model

Firstly I needed to test that both the observable structural variables and unobservable cognitive variables are separately and significantly linked to giving behaviours. This question is addressed in Chapter 4. The separate significance of these elements in their association with giving behaviours is important since it makes no sense to talk further about an interaction between two variables if in fact these two variables are identically determined. If the prosocial influences of individuals are exactly determined by the social environment, then we have no new information on how that social environment may develop over time, or the role of civic sector giving behaviours in that development. Civic sector giving might reflect the state of the social environment, but it would not be a driver of it. Instead 'giving' would simply take care of itself provided *other* drivers of welfare are in place. The finding that giving behaviours can sometimes occur in the *absence* of a favourable social environment however indicates that not only the generalized social environment drives giving, but also people retain some individual control over that giving. Prosocial behaviours and giving are associated with one another, but if giving is not a straightforward product of the social environment, it opens up the question of whether giving actually *changes* the social environment.

Based on this primary finding, the rest of the study seeks to unpick any interaction between prosocial inclinations reflected in giving, and the health of the wider social environment. Chapter 5 considers how the social environment influences the prosocial inclinations to give, and Chapters 6, 6a and 7

consider how those inclinations to give are associated with improved social environment. Chapters 6 and 6a, using two different data-bases (one for each chapter) concentrate on *which* forms of giving we should consider as proxies of civic sector pro-sociality, a force interacting with social cohesion (trust) and other forms of welfare. The chapters demonstrate exactly how 'giving measures' may be used as predictors or indicators of that welfare. But Chapter 7 then goes on to show how giving is associated with an *improving* social environment over time. The purpose of Chapters 5 and 7 is to test the existence of an interaction going on between the two parts of the model: the individual's inclination to give and the conditions of the wider social environment. The existence of an interaction could explain how the civic sector influences social cohesion over time; giving sparks a positive change in the social environment which may motivate others to give also, depending on the motivations, beliefs and further expectations of the recipients. The ripple effects of their decisions may impact the trust and quality of life of the original donor. Moreover the hypothesis suggests that the civic sector's contribution to social cohesion and quality of life can be quantified by easy-to-measure giving flows.

For the empirical analysis itself I used a mixed methods approach based mainly on three large, representative databases and surveys of the British population, but also running my own questionnaire for more in depth, qualitative insights into a local area. In addition to this, I ran an experiment with students in order to address causality.

The advantage of using secondary data is that the surveys are much more extensive than I could have carried out alone. They are more extensive in terms of the number of people surveyed, the range and sensitivity of questions which could be asked, and also in terms of time – the fact that some of the surveys were repeated over many years allowing me to track how certain variables altered over time under one or another condition. Moreover concerns over the quality of the data are more easily allayed when using approved secondary data: The surveys have already been checked for quality in terms of how well they reflect the character of the population they claim to represent, and I cannot be accused of bias in my questions so as to extract a certain story from respondents, since the questions were not asked with my particular research interests in mind.

The disadvantages of secondary data however is that not all of the questions I was interested in were actually asked, or asked in sufficient detail. For example one survey had no information on monetary giving. Another had no information on certain aspects of the wider social environment. Another had no way of controlling for personality. Although one or another database may be deficient in some particular point, by running similar tests using three different data-bases I was able to mitigate some of these objections by showing that the overall picture remained the same: giving behaviours were closely associated with a preferable social environment. The more in-depth local survey, although neither representative nor large, revealed exactly the same patterns but in more vivid detail.

One shortcoming with any statistical analysis however is the problem of confounding effects. In the context of my thesis this means that what looks like a statistically significant interaction between giving and welfare may actually be incidental – the driving force behind the significance could be a completely unrelated variable which was omitted from the analysis. If this is the case, then giving and welfare might both happen to be associated with this factor so that they look like they are associated with each other when in fact they are not.

There are different ways of overcoming this problem in order to prove that the interaction in genuine, and one of these is to run an experiment. Experimental data can also provide some indication of causality. I have suggested that pro-sociality, expressed in giving, both *reflects* the quality of the wider environment, and also *contributes* to the quality of that environment. My experiment puts this to the test by manipulating the relational environment of two groups of students, a treatment group and a control group. In this way, under laboratory conditions, it was possible to test whether this manipulation *changes* the prosocial actions of those students towards a third party. The link between the social environment, prosocial behaviour and the positive externalities this generates for a third party is thereby demonstrated.

An alternative method of proving causality and overcoming the problem of confounding effects would have been to use instrumental variables, but I would have been hard put to find an instrumental variable for giving which is completely independent of welfare, and the validity of my instruments could therefore be contested. Not that laboratory experiments are without their own problems. Although cause and effect can be more clearly affirmed or rejected under controlled conditions, their disadvantage is their applicability to real life. What a certain small sub-set of people (in this case, students) might do within a strictly controlled environment may not reflect what the wider population does under a much more complex set of conditions.

To some extent this drawback is overcome by using a mixed methods approach. The experiment asserts causality as one part of a thesis in which multiple surveys of real life situations within Britain would suggest that an interaction between giving and welfare is taking place.

PART 2:

Empirical analysis of the links between social drivers, giving, and social cohesion

Overview Part 2:

Part 2 comprises an empirical analysis. It tests the proposed linkages between giving, its drivers and social cohesion as were described in Part 1. Giving behaviours are the domain of the civic sector, interchangeably called the voluntary sector or charitable sector, and differing from the state and market sector in that the resource transfers in this sector are non-contractable (one cannot enforce them by contract) (Frumkin 2002). Instead, the transfers rely on pressures and incentives afforded by the external social environment, combined with internalized prosocial motivations (Kolm and Ythier 2006; Bekkers and Wiepking 2007). The fact that easy-to-measure giving behaviours are so closely linked to complex social drivers suggests that in monitoring the former, we may learn something about the latter. Based on the literature to date, I have argued that an individual propensity to give provides us with insights into the prosocial qualities of civic sector relationships, and that this comprises an essential element of social cohesion.

Our analysis tests each aspect of my hypothesis. Chapter 4 identifies structural and cognitive social elements as separate and significant factors associated with prosocial behaviour (represented by giving). These two components are expected to interact in ways that either add to or detract from pro-sociality and social cohesion. The existence of this interaction is tested for in Chapters 5-7. Chapter 5 shows that the social environment affects prosocial motivation and its associated giving behaviours. Chapters 6 and 7 shows that prosocial motivations and their associated giving behaviours are positively associated with a more desirable social environment, with Chapter 6 particularly focussing on *which* kinds of giving bring about the most benefits. Overall I find no reason to refute out hypothesis of Part 1. Giving behaviours provide a valuable indicator of civic sector pro-sociality, which makes a significant contribution to social cohesion. In studying how various socio-economic pressures drive giving, we can therefore discern how these pressures are affecting the cohesiveness of those relationships. A more detailed chapter by chapter overview follows.

Chapter 4 is based on the Citizenship Survey of England and Wales. It considers multiple forms of giving in parallel to find that all forms of giving are generally associated with the same independent variables. Such a finding concurs with the hypothesis that easy-to-measure forms of giving provide us with a proxy also for harder-to-measure prosocial behaviours. My findings also concur with the hypothesis drawn from the literature that giving is associated with (1) the wider social environment; and (2) private attitudes. I further consider to what extent the drivers of giving are also drivers of trust, since trust is often used as a proxy for social cohesion. My analysis suggests that the wider social environment and private attitudes usually interact with and reinforce one another, and yet people *do* have the capacity to give even when they do not trust. This finding supports our hypothesis that private attitudes have a separate and significant association with giving; giving is not a product of the wider

social environment alone. The points of discrepancy in the giving-trust balance may be the points at which the cohesiveness of civic sector relationships is changing.

There is nothing in the analysis so far then which would bring us to reject my model of Fig.3.4. The model suggests that an individual propensity to give interacts with the wider social environment, and that the nature of that interaction, measurable in giving flows, determines whether the civic sector is getting progressively more or less cohesive, for the benefit or detriment of society. Chapter 4 provided evidence of the *existence* of these two forces, the social environment and individual attitudes, but now we want to test whether there is an interaction between these two. Does the social environment drive giving behaviours? And does giving subsequently go on to change the social environment for the better? These are the questions I consider more thoroughly in Chapters 5-7.

Chapter 5 looks at how the social environment influences an individual propensity to give. It does this through a lab-experiment: Two social environments were manipulated so that I could see if making people feel more 'connected' with others influenced their decision to give to a third party, outside of the experiment. I manipulated monetary endowments in each social environment also, so that I could check that it really was the relationship that made the difference, and not just any 'feel-good' factor. The experiment enabled me to demonstrate that giving behaviours are a sensitive barometer of the wider relational environment. It also addressed the issue of whether the association between an individual's decision to give and the wider social environment is spurious, since it could be shown that changes in the social environment indeed drove changes in individual behaviours, with knock on consequences to welfare for a third party.

So Chapter 5 shows that the wider social environment influences giving, but now I want to see whether an individual decision to give influences the wider social environment with all of its 'quality of life' credentials. First Chapter 6 establishes the existence of an association between giving and welfare within the wider social environment; if civic sector giving behaviours add to (and are stimulated by) social cohesion, and social cohesion is known to be good for society, then we may expect to see that giving is linked to positive welfare outcomes.

'Welfare' is often measured in terms of income (income being instrumental to welfare). I certainly consider income, but I enrich our understanding of welfare by looking also at how giving interacts with life satisfaction, with trust levels, or with crime and deprivation levels. Trust, crime and deprivation are particularly dependent on how *other* people are getting on in a neighbourhood; they are not welfare indicators specific to the individual alone. We are not supposing that a person who gives experiences an immediate improvement in trust or an immediate fall in local crime, since these things depend on a reciprocation of positive, trustworthy behaviour. We may however expect that a person who gives is part of a giving *network* of persons, and that persons in this social environment will be better off than persons outside of such networks. The data I use is taken from multiple sources: Firstly

there is the Citizenship Survey of England and Wales. I compare this data to giving-welfare patterns emerging in 'Understanding Society' data, and then to the British Household Panel Survey. To this I add observations from detailed qualitative data taken from a study of philanthropists in Berkshire County, East England. I also want to see *which* kinds of giving are most important to measure, and how different giving behaviours can be aggregated onto a single scale.

I find that giving is certainly associated with better welfare outcomes in society, and indeed, that giving behaviours are better predictors of welfare than incomes are. Although GDP remains a vital indicator of development, in that incomes are necessary to support household expenditure, education, healthcare and employment, giving behaviours also have a separate and significant impact on quality of life. Their measurement sheds light on an aspect of welfare which monetary indicators fail to capture. But now we need to study whether giving behaviours actually *change* that social environment, or whether giving remains only a *product* of that environment. In the latter case, although giving may be useful as a proxy for the pro-sociality it represents, we can expect that it will simply take care of itself as we concentrate on social drivers that *really* matter).

The question of causality is broached in the latter part of Chapter 6 and in Chapter 7. I find evidence of causality running both ways, just as the model of Fig.3.4 predicted, but sequentially, over time. So just as a cohesive social environment impacts an individual propensity to give in one time period, so the individual propensity to give goes on to marginally influence the state of the social environment in the *next* time period.

I sum up all these findings in Part 3, presenting a simplified model of civic sector cohesion in Fig.8.1. We can draw from this (1) a better understanding of how civic sector pro-sociality influences social cohesion and its development over time, for the improvement or degeneration of welfare; and (2) evidence that the prosocial qualities of civic sector relationships may be measured by giving flows; a measure which provides a basis for policy making and adjustment.

Chapter 4. **The social environment and prosocial preferences: drivers of giving**

4.1 Introduction

I used the Citizenship Survey of England and Wales and regression analysis to consider three main points. Firstly, if giving represents pro-sociality that has both structural and cognitive drivers as described in Part 1, then we may expect to find evidence of giving being associated with these factors in my regressions. In terms of structural drivers, the Citizenship Survey allows us to check if giving is significantly associated with connections amongst people and with socio-economic positioning. The motivational or attitudinal component is not so tangible; it is less easily identified in survey questions, and any impact it has on giving must fall into the regression residuals.

I therefore examined these regression residuals to see if any systematic unobserved propensity to give remained there. This involved setting up multiple regressions considering the influences on different forms of giving. The different forms of giving included whether or not the respondent had volunteered, helped others informally, or participated in civic action over a recent time period, or else how much she gave to charity in the last four weeks. I stripped out all possible observable exogenous variables identified in the survey, and by definition, remaining unobserved influences must fall into the regression residuals. I then used principal component analysis to examine co-variation between the residuals of the regressions. A statistically significant co-variation represents an unobserved 'propensity to give;' individuals give more in all areas than their observed variables would predict. The method allowed us to extract more information from the data-source than usual by examining not only regressions for observable structural influences on giving and trust, but also the regression residuals, in which the unobservable attitudinal influences on giving are found. The method allowed us to check if there is any immediate reason to annul the hypothesis that prosocial behaviour forms like 'giving' are representative of the pro-sociality of civic sector interactions, with its structural *and* cognitive aspects.

Secondly, I note that in testing multiple forms of giving in parallel, we were able to determine whether there was a common thread to their drivers. This is important because the inclination to give has multiple expressions; recall from Part 1 that I mentioned a willing transfer of useful information, giving way in traffic, not wasting work-time, shunning tax avoidance, driving a fair rather than a hard bargain. Not all such transfers are tangible or easy to monitor, vital though they are to trust and to efficient cooperation. However if we find that multiple forms of giving all have the same drivers, then we may infer that by monitoring a limited array of prosocial behaviours like the giving of time and money, we might gain information about a much more generalised array of prosocial behaviours. This would support the idea that giving patterns are a useful indicator of prosocial inclination generally.

Thirdly and finally this work considers how the structural and cognitive factors identified in my regressors affect giving and trust in parallel. Trust is another socially dependent variable, and thus the average number of people in a locality expressing trust in neighbours is a frequently used proxy for social cohesion. Since giving behaviours are being used to reveal information about pro-sociality within the civic sector, it is interesting to see to what extent the drivers of giving are also drivers of trust. The key difference between the two measures is that the trust measure is based on the respondents perceptions of how trustworthy the actions of other people are (it is a subjective assessment of the social environment), whilst giving is an objective manifestation of the trustworthy (civically responsible) behaviour of the respondent him/herself. For the most part, the two should run together in a cohesive society. A group of people who trust each other are more stimulated to give since they have confidence that their outlay will not be abused. Meanwhile a group of people who give are manifesting trustworthy norms, and this maintains the trusting environment (see Dasgupta (2009) and Knack and Keefer (1997) for the interaction between trustworthiness and trust; also Kolm and Ythier (2006) show through lab experiments how trustworthy, prosocial behaviour, tangibly expressed in the way people allocate their resources, must be in play if trust and further collaborative behaviour are to persist over time). Having said all that, my analysis of individual-level social variables may reveal specific conditions under which people trust but do not give, or give in spite of not trusting, and in this we may be identifying points at which the balance of social cohesion may change.

4.2 Analysis and results

4.2.1 Method

The Citizenship Survey ran intermittently from 2001-2010/11 with the purpose of providing an evidence base for the work of the UK Department for Communities and Local Government (DCLG) covering the issues of community cohesion, civic engagement, volunteering, race and faith. The data is a nationally representative (two-stage stratified) survey of England and Wales, whose outputs have been certified by the UK Statistics Authority as compliant with the Code of Practice for Official Statistics. Over 38,000 separate interviews were conducted face-to-face over four consecutive years until 2011, and it was this 2008-11 portion of the dataset that I used. Respondents were aged 16 years and over and lived in private households. Descriptions of all individual and community demographics that were used from the survey are available in the appendix. Neighbourhood deprivation data for the ward each respondent lived in was taken from government records and had been imputed to each individual's data-set (average ward size being 6,600 persons according to the Office for National Statistics 2013). The data was treated as a cross-sectional survey, pooling across the years and inserting year dummies to account for general socio-economic effects. Regressions were run to determine the drivers of trust and of different forms of giving behaviour.

It is generally accepted across disciplines that certain groups of people are pre-disposed to certain behaviour forms, which is why regression analysis usually controls for age, race, gender and so on. Here therefore I control for every available demographic revealed in the survey that might pre-dispose people to giving and to trust. Giving and trust are treated as endogenous variables; they are factors responsive to circumstances which are exogenous at least in the short term. Variables like gender, race and age are strictly exogenous; the status influences the giving and trusting, giving and trusting cannot change the status. Thus causality is clear. Variables like location, marital status, income, and house tenure are slightly more ambiguous. In the long term and in aggregate, being in giving and trusting networks might make someone more likely to marry, or it might influence where they end up living, or it might enlarge the scope for collaborative activity and increased incomes. However, in the short term, people will base their decisions on what they give or how much they trust on their present circumstances. Fluctuations in giving or trusting do not cause these circumstances to fluctuate from day to day. Thus we have an indication of how certain observed circumstances or pre-dispositions influence short term behaviour patterns in terms of giving and trust.

In this analysis, I set up five regressions using the same independent variables but having four different types of giving and fifthly trust as the respective dependent variables. I examined how every available structural exogenous variable included in the survey was associated with giving and trust. There were 45 of these variables, excluding value judgements and opinions (which are not structural drivers) and excluding variables related to questions that were only asked to a proportion of the population (which would have drastically reduced the number of observations). Having stripped out all possible structural variables of influence on our five dependent variables, I then examined the five sets of residuals arising from these equations. Residuals show how much more or less giving or trust per individual actually takes place than would be predicted by the observed independent variables that are controlled for in the regression itself. An unobserved driver of giving will unify the pattern of these residuals, whereas if no such unifying factor exists, they will fall randomly around the predicted values.

The residuals can be examined for any further factors of significance using principal component analysis. Principal component analysis converts the potentially correlated residuals into a set of values of linearly uncorrelated variables called principal-component factors. There are five sets of residuals from the five regression model, and for this reason principal component analysis computes five factors representing unobserved influences on various forms of giving and on trust. Under principal component analysis, the five unobserved factors influencing the fall of these residuals are linearly uncorrelated; they vary independently of one another. The implication then is that they are different from one another; they are differing unobserved variables with differing impacts on giving and trust behaviour. A factor that is statistically significant and that affects every type of giving represents an unobserved 'propensity to give.' If there is an attitudinal driver to giving, then we should find one

such statistically significant factor. An algebraic model with respect to this analysis is found in Appendix 4B. The results of the analysis are to follow, starting with the influences that are observable in the regressions.

4.2.2 Analysis of observed exogenous variables

Table 4.1 shows that there are positive correlations between different forms of giving and between giving and trust in neighbours. Each of these correlations is statistically significant. Trusting people give more, and to an even greater extent, 'giving people' tend to give in multiple ways.

	volunteer	informal help	civic participation	donations to charity	neighbourhood trust
volunteer	1				
informal help	0.3028***	1			
civic participation	0.2478***	0.1814***	1		
donations to charity	0.3001***	0.2349***	0.1934***	1	
neighbourhood trust	0.1399***	0.0617***	0.0887***	0.1634***	1

Table 4.1 Correlation between different forms of giving and between giving and trust:

The Citizenship questionnaire defines formal volunteering as helping to run a group. 40% of respondents had volunteered in the last 12 months. Informal help is unpaid help offered by an individual, not through a group, to someone who is not a relative. 58.5% had offered informal help in the last 12 months. Civic participation is engagement in activism and consultation, or else in participation in governmental structures as a volunteer (e.g. local councillor, school governor, special constable or magistrate). 37% affirmed civic participation in the last 12 months. Yearly time-frames were chosen over monthly time-frames due to the more even distribution of responses between those giving time and those not. Donations to charity comprised the total sum of money given to charity in the last 4 weeks. 26% of respondents did not give to charity; 20% gave less than £5; 15% gave from £5-£9; 17% gave from £10-£19; 15% gave from £20-£49; and 7% gave £50 or more. Note that most of these giving indicators are not resource intensive, so wealth is not a limiting factor. Even with respect to monetary giving, if the categories are changed such that any donation at all is compared to no donation, the findings of this chapter are not substantially altered. The trust question posed and the responses were: 'Would you say that many of the people in your neighbourhood can be trusted (51%); some can be trusted (33%); a few can be trusted (14%); or none of the people in your neighbourhood can be trusted? (2%).

Table 4.2 shows the results of five regressions, four of which have the different forms of giving as the dependent variable, and the fifth with trust as the dependent variable. These reveal to what extent the observable circumstances pre-dispose people to giving and trust. Put alongside each other, they also reveal to what extent the different forms of giving are driven in unison, and to what extent giving and the givers' trust levels work in unison.

The interactions between circumstantial variables and giving/trust	4 giving variables				Trust variable
	volunteered in last 12 months (0,1) logit	informal help given last 12 months (0,1) logit	civic participation last 12 months (0,1) logit	total given to charity last 4 weeks (6 categories) OLS	trust in neighbours (4 categories of increasing trust) OLS
	y_1	y_2	y_3	y_4	y_5
x_1 House owned outright	0.1077*	0.0184	0.1401***	0.1733***	0.1580***
(0:no; 1:yes)	[0.059]	[0.044]	[0.044]	[0.029]	[0.014]
x_2 House owned with mortgage	0.0641	-0.0165	0.0455	0.0381	0.1613***
(0:no; 1:yes)	[0.049]	[0.038]	[0.038]	[0.025]	[0.012]
x_3 Time lived in community	0.0909***	0.0820***	0.0902***	0.0210*	0.0136**
(1: <1 year to 4: >6 years)	[0.021]	[0.016]	[0.017]	[0.011]	[0.006]
x_4 Household size (sharing)	0.1608***	0.0435***	0.0004	0.0107	0.0065
(1:live alone to 5:5+ sharing)	[0.019]	[0.014]	[0.014]	[0.010]	[0.005]
x_5 Cohabiting	-0.4346***	-0.1261**	0.1163**	-0.0870**	-0.0453**
(0:no; 1:yes)	[0.077]	[0.059]	[0.059]	[0.040]	[0.020]
x_6 Married	-0.1578**	-0.1378***	0.1206***	0.0135	-0.009
(0:no; 1:yes)	[0.062]	[0.047]	[0.046]	[0.031]	[0.015]
x_7 Family care outside household	0.1877***	0.2661***	0.1499***	0.1678***	-0.0552***
(0:no; 1:yes)	[0.052]	[0.041]	[0.039]	[0.026]	[0.013]
x_8 Takes part in a formal group	8.2573***	0.8365***	0.6883***	0.5005***	0.1000***
(0: no group; 1:in a group)	[0.448]	[0.029]	[0.030]	[0.020]	[0.010]
x_9 Mix ethnic and relig. circles	0.4099***	0.3931***	0.2511***	0.2807***	0.0089
(0:no; 1:yes)	[0.040]	[0.030]	[0.030]	[0.020]	[0.010]
x_{10} Age 25-34	-0.0626	0.0412	0.2974***	0.0860**	0.0805***
(0:no; 1:yes)	[0.073]	[0.056]	[0.060]	[0.037]	[0.019]
x_{11} Age 35-44	0.2453***	0.1446***	0.5785***	0.2084***	0.1402***
(0:no; 1:yes)	[0.074]	[0.056]	[0.059]	[0.037]	[0.019]
x_{12} Age 45-54	0.2036***	-0.0452	0.6193***	0.2182***	0.2070***
(0:no; 1:yes)	[0.079]	[0.059]	[0.062]	[0.040]	[0.020]
x_{13} Age 55-64	0.2517***	-0.0261	0.6421***	0.3230***	0.3351***
(0:no; 1:yes)	[0.086]	[0.065]	[0.068]	[0.043]	[0.021]
x_{14} Age 65-70	0.3723***	0.1148	0.7538***	0.4699***	0.4094***
(0:no; 1:yes)	[0.106]	[0.079]	[0.081]	[0.053]	[0.026]
x_{15} Gender	0.1517***	0.1982***	0.0865***	0.2719***	-0.0559***
(1:male; 2:female)	[0.039]	[0.030]	[0.030]	[0.020]	[0.010]
x_{16} White	0.2481***	0.2806***	0.5397***	0.1523***	0.1245***
(0:no; 1:yes)	[0.073]	[0.056]	[0.058]	[0.037]	[0.019]
x_{17} Personal income	-0.0024	-0.0007	0.0206***	0.0846***	0.0053***
(0:no £, 1:low to 14: high)	[0.007]	[0.006]	[0.005]	[0.004]	[0.002]
x_{18} Partners income (0:no partner	0.0268***	0.0056	0.0045	0.0347***	0.0092***
or with no £; 1:low to 14: high)	[0.007]	[0.006]	[0.005]	[0.004]	[0.002]
x_{19} Qualifications	0.4436***	0.3102***	0.4011***	0.2936***	0.0988***
1 (no formal qual.) to 3 (degree+)	[0.032]	[0.024]	[0.024]	[0.016]	[0.008]
x_{20} Unemployed	0.2560**	0.1965**	-0.0343	-0.2256***	-0.0635**
(0:no; 1:yes)	[0.110]	[0.078]	[0.081]	[0.052]	[0.026]
x_{21} Employed	-0.0604	0.1117***	-0.1115***	0.0582**	0.0131
(0:no; 1:yes)	[0.050]	[0.037]	[0.038]	[0.025]	[0.012]
x_{22} Health limits activity	-0.0086	0.0690*	0.2736***	0.0065	-0.0566***
(0:no; 1:yes)	[0.051]	[0.039]	[0.038]	[0.026]	[0.013]

x_{23} Income deprivation in ward	0.0167	0.0159	0.0088	0.0134	-0.0422***
(1:least to 10:most deprived)	[0.019]	[0.015]	[0.014]	[0.010]	[0.005]
x_{24} Employment deprivation in ward	0.0289	0.0067	0.0017	-0.0141	0.0195***
(1:least to 10:most deprived)	[0.022]	[0.017]	[0.017]	[0.011]	[0.006]
x_{25} Health deprivation in ward	-0.0437**	-0.019	0.0017	-0.0005	-0.0090*
(1:least to 10:most deprived)	[0.020]	[0.015]	[0.015]	[0.010]	[0.005]
x_{26} Education and skills in ward	-0.0275**	-0.0258***	-0.0249***	-0.0296***	-0.0315***
(1:least to 10:most deprived)	[0.013]	[0.010]	[0.010]	[0.007]	[0.003]
x_{27} Barriers to housing and services	0.0158**	0.0133**	0.0102*	-0.0043	0.0044**
(1:least to 10:most deprived)	[0.008]	[0.006]	[0.006]	[0.004]	[0.002]
x_{28} Crime in ward	-0.0314***	-0.0051	-0.0128*	-0.0061	-0.0287***
(1:least to 10:most deprived)	[0.010]	[0.008]	[0.008]	[0.005]	[0.003]
x_{29} Living environment	0.0227**	0.0066	0.0258***	0.0139***	0.003
(1:least to 10:most deprived)	[0.009]	[0.007]	[0.007]	[0.005]	[0.002]
x_{30} Practicing Christian	0.4541***	0.2437***	0.0367	0.5873***	0.0189
(0:no; 1:yes)	[0.057]	[0.044]	[0.043]	[0.029]	[0.014]
x_{31} Non-practicing Christian	-0.0467	-0.0446	-0.1556***	-0.006	0.0014
(0:no; 1:yes)	[0.047]	[0.036]	[0.036]	[0.024]	[0.012]
x_{32} Practicing other religion	0.2402**	0.0305	0.1565**	0.4300***	-0.0141
(0:no; 1:yes)	[0.099]	[0.075]	[0.076]	[0.050]	[0.025]
x_{33} Non-practicing other religion	-0.1388	0.1989**	0.1015	0.1361**	-0.0542*
(0:no; 1:yes)	[0.119]	[0.090]	[0.090]	[0.060]	[0.029]
x_{34} Region of England: North East	0.0352	0.1287*	-0.2029***	0.0756	0.0567**
(0:no; 1:yes)	[0.098]	[0.075]	[0.077]	[0.050]	[0.025]
x_{35} North West	-0.0296	-0.0915	-0.1542***	-0.0094	0.0736***
(0:no; 1:yes)	[0.076]	[0.058]	[0.058]	[0.039]	[0.019]
x_{36} Yorkshire and the Humber	0.2410***	-0.011	-0.0643	0.0434	0.0800***
(0:no; 1:yes)	[0.082]	[0.061]	[0.061]	[0.041]	[0.020]
x_{37} East Midlands	0.2687***	0.0391	-0.0226	-0.1106***	0.0474**
(0:no; 1:yes)	[0.085]	[0.064]	[0.063]	[0.043]	[0.021]
x_{38} East	0.1072	0.1428**	-0.0154	-0.0113	0.0593***
(0:no; 1:yes)	[0.080]	[0.063]	[0.061]	[0.042]	[0.020]
x_{39} London	-0.2151**	-0.2490***	-0.1457**	-0.1343***	-0.1132***
(0:no; 1:yes)	[0.084]	[0.064]	[0.064]	[0.043]	[0.021]
x_{40} South East	0.1560**	0.2239***	0.0953*	0.002	0.0195
(0:no; 1:yes)	[0.074]	[0.059]	[0.057]	[0.039]	[0.019]
x_{41} South West	0.2603***	0.2028***	0.0455	-0.012	0.1152***
(0:no; 1:yes)	[0.081]	[0.063]	[0.062]	[0.042]	[0.021]
x_{42} Wales	0.2894***	0.0978	0.1291*	0.0649	0.0667***
(0:no; 1:yes)	[0.104]	[0.076]	[0.075]	[0.051]	[0.025]
x_{43} Year 2009	0.0171	-0.0751*	0.0003	-0.0143	0.0592***
(0:no; 1:yes)	[0.050]	[0.040]	[0.038]	[0.026]	[0.013]
x_{44} Year 2010	0.0425	-0.3942***	-0.1710***	-0.0612**	0.0512***
(0:no; 1:yes)	[0.051]	[0.040]	[0.039]	[0.026]	[0.013]
x_{45} Year 2011	-0.0019	-0.3479***	-0.1485***	-0.1094***	-0.1590***
(0:no; 1:yes)	[0.059]	[0.046]	[0.045]	[0.030]	[0.015]
Observations (n)	25,890	25,890	25,890	25,485	25,073
R-squared				0.207	0.215
F (45, n-46)				147.38	151.98
Prob>F				0.000	0.000
LR chi2(40)	16621.36	2679.06	2511.22		
Prob>chi2	0.000	0.000	0.000		
Pseudo R2	0.4683	0.0782	0.0726		

Log likelihood	-9436.8834	-15797.638	-16032.013

Table notes:

- Standard errors in brackets *** p<0.01, ** p<0.05, * p<0.1
- The total data pool comprised 38,283 observations, but data was lost due to the inclusion of so many independent variables with odd missing responses. The single largest loss of data was incurred by including the 'qualifications' variable, which cut out all respondents over the age of 70 (17% of the sample). Education has such an important interaction with giving that the variable was included anyway.
- Volunteering, informal help and civic participation were yes/no responses so were analysed using a logit regression model that constrained the outcomes between 0 and 1. Giving to charity had six categories of response, which lends itself to an ordinary least squares regression. Trust had four categories of response and was also analysed using ordinary least squares – not the ideal statistical model for only four outcomes, but still the most informative indicator of relative statistical and economic significance.
- House tenure dummies compare to renting or other forms of tenure;
- Religion dummies compare to no religion;
- Employment status dummies compare to those outside of the job market;
- Married or cohabiting dummies compare to no partner;
- Age dummies compare to age 16-24 (the youngest age);
- Regional dummies compare to the West Midlands (the most central point of England and Wales);
- Year dummies compare to 2008, the year the survey started.
- No personality measures are available in this survey
- Note that 'takes part in a formal group' has a disproportionately large effect on volunteering compared to its impact on other forms of giving. This is because volunteering is *defined* in this survey as helping out in the running of a formal group one takes part in. Thus those who do not taking part in a formal group are automatically excluded from volunteering, and the interaction between these two variables is extreme. This factor could also be responsible for the unusually large value of the Pseudo R^2 in the volunteering regression.

Table 4.2 Regressions showing the interactions between circumstantial variables and giving/trust

In keeping with the correlations of Table 4.1, we may observe that the independent variables relating to giving are much more closely associated with each other than with trust. However, the majority of variables influenced giving and trust in the same direction.

Most of the coefficients of the independent variables have the same sign for all forms of giving (they influence giving in the same way), but a few of them suggest a substitution between time and money giving. For example, people in larger households seem to be particularly strong on volunteering but not on money giving. Spending time with children may be restrictive in terms of formal employment (and therefore income) but it offers time and opportunity for group engagement. Likewise, people with high personal incomes tend to give significantly more money than those with low incomes, yet their volunteering is not affected. Those whose *partners* have high incomes on the other hand both give more money *and* volunteer significantly more; if they do not have to work there are few restrictions in either direction. Unemployed people were likely to volunteer more time than the employed, but gave significantly less money than those whose financial pressures were not so intense. Despite this evidence of a time-money trade-off, Table 4.1 revealed that time and money giving are closely and

positively correlated overall. It would appear that the 'giving person' effect is of greatest importance, although 'resource substitution' may take place at the margin.

Variables that had the strongest positive influence on most forms of giving were (1) increasing age; (2) increasing qualifications; (3) group participation; (4) practicing a religion (particularly Christianity); (5) mixing across ethnic and religious circles and, to a slightly lesser extent, (6) being white. 'Age' and, 'being white' influenced trust positively as well, as did, to a lesser extent, 'group participation' and 'qualifications'. Trust also responded strongly to location and to house ownership, reflective of the trustworthiness of the community one is part of.

Age, race and gender are important factors that are not self-determined. However, their association with giving and trust is not derived from an inherent ability to give more or to trust more. The giving and trusting are rather to do with the way the demographic status interacts with resources and inter-personal connections. For example, older people do not give more just because they have passed their next birthday. Rather their age represents their progression through life; their resource and social network accumulation and the shedding of the constraints and expenditures of young family life (see also Bauer *et al*. 2012; Mayo and Tinsley 2009). Likewise ethnic minorities give less in every way and also trust less, but not because of their colour. Rather, being 'different' sets social boundaries, and here there is evidence of poor integration in giving and trusting networks. In terms of gender, women are more giving and less trusting than men. Here it may be noted that the giving is not driven by the woman's trust in other people who make up her relational environment; there are other interpersonal drivers at work. I do not here attempt to determine whether women are inherently more prosocial than men (see for example Madson 1997) or whether it is the caring roles they often assume that influences them, but what we can clearly see is that prosocial drivers characteristic to women are reflected in giving behaviours. The survey year is also out of individual control. It can be seen that volunteering has held up over the years, whilst informal volunteering, civic participation and donations to charity have reduced over time. Trust rose from 2008 (the year of the financial crash) then began to fall again. Again, the changing dates are not what causes these differences; the giving and trust are rather responding to changes in the way people are interacting with one another over time.

Compatible with the understanding that giving (and trust) reflects the quality of relations within the civic sector, I find that its *adjustable* drivers are (1) connections between people; (2) resource availability and distribution; and (3) prosocial attitudes. Table 4.3 describes each of the adjustable variables in terms of their influence on giving and on trust, and also in terms of how these variables may be linked to the socio-economic environment and to prosocial motivations.

Variable and the significance of its interaction with giving and trust	Link to the socio-economic environment and to prosocial motivations
Education: Closely linked to trust and to all forms of giving.	Education is a form of giving in itself. It is a transfer of information from those who have more knowledge to those who have less, and is often provided at less than full cost to the beneficiary. The prosocial stimuli this affords to the beneficiary can be further enhanced by the networking opportunities it provides and by the way education is carried out. Algan *et al.* (2013) find that stimulating cooperation in the classroom (e.g. through group work) is found to enhance prosocial attitudes.
(1) **Take part in a formal group**: Closely linked to all forms of giving and to trust. (2) **Family care outside of the household**: Closely linked to all forms of giving but *not* to trust - it does not appear to be trust that drives this form of giving.	Both these variables represent a giving of time into an inter-personal activity. This in itself may be considered a form of giving, so it is not surprising that people who do these things also score significantly higher in the other forms of giving.
Religious and ethnic mixing (informal conversations with people of different social backgrounds in homes, clubs and eating places; all places where choice over who one converses with may be exercised). Strongly correlated with all forms of giving, but not with trust. Being different is a social barrier, and it is not trust that motivates interaction across these boundaries; there appear to be more intrinsic motivations involved.	Resources running through connections across social boundaries counteract the exclusion of vulnerable and less powerful groups, reducing the polarization of communities. Majority status individuals who cross religious and ethnic boundaries do not necessarily have any advantage, whilst minority social groups *do* have an advantage (see Chapter 6, looking at the correlation between mixing and crime, deprivation and trust). Mixing is not simply a strategic way of obtaining some self-centred objective then. This and the link with giving (mixers are givers) suggests that there are prosocial attitudes and values involved.
Home owners tend to be more trusting than tenants, but not necessarily more giving – only those who own their house outright tend to give more (particularly money).	Home owners choose the community they invest a lot of money into with care for its trustworthy status. By implication of their ownership status, they had the means to buy themselves into this preferred social environment, irrespective of their personal social inputs into it. Higher levels of giving amongst those without a mortgage may reflect their lighter financial obligations, releasing them to engage in charitable pursuits (The Center on Philanthropy at Indiana University in the USA 2007; Bauer *et al.* 2012 and Mayo and Tinsley 2009).
Length of stay in a community: Linked to giving, and also to trust but only at a 90% confidence interval.	Staying a long time in a community gives relationships chance to mature; social cohesion is built with implications for reciprocal giving and for trust.
Partner: Associated with increased levels of civic participation, and reduced levels volunteering and informal help. Cohabiting partners were less likely to 'give' than married couples, also in terms of charitable donations. Their trust is also less.	Involvement with a partner in itself implies an investment of time and money into another person, and there appears to be an element of trade-off between involvement with a partner and involvement with people outside of that partnership. These effects are offset however by increased levels of civic participation. Also increased levels of giving connected with the 'partners' income' variable and with the bigger household variables.
Area deprivation levels are taken from the components of the multiple deprivation indices corresponding to the ward of the respondent. If the regression is rerun with the separate components of the multiple deprivation index put together	The local socio-economic environment clearly influences the trust its inhabitants feel towards others, and also their inclination to give. Of all the individual areas of deprivation, education and skills deprivation had most significant negative impact on giving and trust, and crime came second. Barriers to housing and services actually have a small positive influence – perhaps

into the single, weighted deprivation index, I find a significant negative effect of deprivation on trust and giving (volunteering and informal help with a 95% confidence interval; charitable donations and trust with a 99% confidence interval).	reflective of rich (expensive) areas or rural (isolated) areas; wealth and less urbanization both being associated with more community building activities (see for example how London, the most highly urbanized region, is found to have less givers (and less trust) than other regions, even though urbanization has advantages associated with job availability. In contrast, the rich South East and the rural South West of England tend to have more givers).
Religion: People who practice a religion give significantly more than those who do not practice a religion or who have no religion. Practicing Christians are particularly large givers, except in the area of civic participation. The giving behaviour associated with religion is not driven by trust – trust and religion have no significant correlation.	English and Ray 2011; Paik 2011; Smith 1994 all report how religion is connected to giving. Giving is clearly not being driven by trust; religious people give in spite of their perception of others, not because of it. More likely the moral values of their group are of influence (one of the bible's key themes is love for one's neighbour, and most other religions have pro-giving values too). The fact that non-practicing 'other religions' help each other out so much may be reflective of their minority status and, for survival, their need to support one another.

Table 4.3 Description of variables

I find then that giving behaviours and trust levels are reflective of the wider socio-economic environment. In terms of resource availability and distribution it can be seen that people give more of what they have (the substitution between time and money). Moreover, those who have received or accumulated more are in a position to give more back (seen in 'education,' 'age' (stage of life), 'income,' 'house ownership,' and 'location'). So resource availability matters, although resources by themselves cannot stimulate giving in the absence of an appropriate inter-personal environment that induces people to part with them. I find this my lab experiment of Chapter 5. Also Fiske (1992) and DeScioli and Krishna (2013) demonstrate in lab-experiments the critical importance of the social environment in determining the way people allocate their resources. Mayo and Tinsley (2009) and Breeze (2006) go far as to suggest that in the UK and the US, the propensity to give reduces as incomes rise: civic participation is not an automatic response to greater wealth. Social pressures and incentives do exist however, and their cohesive influence is found to reflect in higher giving levels amongst networked people (the variables 'group participation,' 'employment,' 'education' and 'mixing'). Giving is also seen to be related to behaviour cues (cultural status, religion and community deprivation). People who engage in relational activities with others tend to be the biggest givers (mixing across ethnic and religious lines, attending groups and meetings, living/sharing with others, helping family outside the home, getting established long term in a community, employment, even education).

In terms of the way in which giving and trust move together however, it is of note that a motivator to give may sometimes be effective without that motivator inspiring the giver to trust people around them; it is not always necessary to trust in order to give. This is a point to which I return in Section 3. First I look at the unobservable data that is found in the residuals of these regressions.

4.2.3 Analysis of residuals for unobserved associations with giving behaviour

The residuals of the five preceding regressions comprise all the influences on giving and trust that cause the outcome to vary in ways *not* explained by the observable data. Thus any unobserved motivation falls into the residuals. Table 4.4 shows the degree to which there is correlation between the residuals of the various regressions, defined by their dependent variable.

	residuals of volunteering	residuals of informal help	residuals of civic participation	residuals of donations to charity	residuals of trust
residuals of volunteering	1				
residuals of informal help	0.1216***	1			
residuals of civic participation	0.0871***	0.1049***	1		
residuals of donations to charity	0.0905***	0.1333***	0.0901***	1	
residuals of trust	0.0230***	0.0091	0.0137***	0.0417**	1

Table 4.4 Correlation between the residuals of the various regressions

Just as with the correlations between the dependent variables themselves, it can be seen that there is some common relationship between the unobserved drivers of giving; something is uniting the fall of the residuals in a common direction. All of the correlations between giving residuals are statistically significant. The variations in giving also interact positively with variations in the giver's trust, but with less of a close correlation, and without consistent statistical significance.

Table 4.5 shows the results of running STATA's principal-component factor analysis on these residuals. Since there are five sets of residuals, there are five principal factors. Only one of these is of statistical significance, having an eigenvalue of 1.32. This suggests that there is one statistically significant unobserved 'propensity to give.' All other kinds of correlation between the residuals are just noise.

Factor analysis/correlation		Number of obs =	24685
Method: principal-component factors		Retained factors =	1
Rotation: (unrotated)		Number of params =	5
Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	1.3215	0.3220	0.2643	0.2643
Factor2	0.9995	0.0843	0.1999	0.4642
Factor3	0.9152	0.0062	0.1830	0.6472
Factor4	0.9091	0.0544	0.1818	0.8291
Factor5	0.8547	.	0.1719	1
LR test: independent vs. saturated: chi2(10) = 1546.48 Prob>chi2 = 0.0000				

Table 4.5 Principal component analysis on the giving residuals (with trust)

Notes on method: The principal component analysis was carried out using STATA, whose help manual provides justification for the way in which it computes these results. The 'principal-component factor' method was used to analyse the correlation matrix. Under this method, the factor loadings are computed using estimates of

communality which are assumed to be 1. The results are very similar however if the principal-factor method is used (STATA's default) in which factor loadings are computed using the squared multiple correlations as estimates of communality. The principal factors are calculated from the correlation matrix rather than the covariance matrix, since the covariance matrix is meaningful only if the variables are expressed in the same units. Here I am comparing residuals of logit models to residuals of OLS models, and my interest is in the relative position of these residuals, not their actual values.

Table 4.6 shows that this factor applies positively to the residuals of all forms of giving, and to each to roughly the same degree. It also interacts positively with the residuals of trust, although to a much smaller degree. These findings suggest that there is indeed an unobserved 'propensity to give' of general importance to giving behaviours, and that this propensity to give does not have a lot to do with the giver's trust levels. As a robustness check I even added 'trust' into the giving regressions as an explanatory factor. Although trust matters as one part of the wider social environment, this manipulation had a negligible impact on my analysis of residuals. Again, this implies that the unobserved propensity to give was not related to trust; to the giver's view of external systems and behaviours.

Variable	Factor1	Uniqueness
residuals formal volunteering	0.5506	0.6969
residuals informal volunteering	0.6226	0.6123
residuals civic participation	0.5212	0.7284
residuals give money	0.5790	0.6647
residuals trust neighbours	0.1542	0.9762

Table 4.6 Factor loadings (pattern matrix) and unique variances

Although we do not know the nature of the unobserved variable (or correlated set of variables), we do know that prosocial attitudes are not observed in this regression except through their expression in prosocial behaviours like giving, and furthermore that attitudes can be expected to have a significant impact on giving (Kolm and Ythier 2006; Bekkers and Wiepking 2007). It is reasonable then to assume that the unobserved motivator of giving identified in the residuals is going to have an attitudinal component.

As with all omitted variables, not only the sizes of the residuals are affected, but also the coefficients of the regression itself would be altered would it be possible to include a variable for unobservable prosocial attitudes. To some extent there is an unobserved component even to the observable variables; prosocial attitudes were already manifest in observed behaviours such as mixing with other ethnic groups or helping out family members. Some of the influence of prosocial attitudes on giving was already accounted for then via these and other such variables, but clearly not all; a significant unobserved individual propensity to give remained in the residuals. If it was any other missing variable, we could simply add it into a new, enriched regression model and test for it, but prosocial attitudes are unobservable except in prosocial behaviour forms like giving, or else in subjective self-

assessments which compromise the objectivity of my research. What the presence of this unobserved factor *does* tell us though is that the attitudes of the individual are a distinct social factor of importance, having their own significant influence on giving behaviours.

I also consider how 'trust' and 'giving' respond to various social influences in tandem. Although both are affected by the social environment, 'trust' reflects an individual's perception of the social environment as produced by others whilst 'giving' is that individual's own personal response into the lives of others. As was said in the introduction, the response is likely to be *influenced* by trust in recipients to make good use of the gift, but it is not entirely dependent that factor; my analysis highlights the existence of other factors in play. On a communal level the average participation in giving behaviours specific to 10 government office regions was highly correlated to the average trust levels of those regions (correlations of up to 0.88; see Table 4.7).

	probability of volunteering by government office region	probability of donating to charity by government office region
average trust levels by government office region	0.73	0.88

Table 4.7 Correlation between *regional* giving and *regional* trust

This is not surprising when we consider the link between trustworthy (e.g. giving) behaviours and trust; giving stimulates the trust of others and trust stimulates giving, as outlined in the introduction. On an individual level the positive correlation between the givers' trust levels and their willingness to donate to charity is 0.16. This is still statistically significant, and fits with the observation that people prefer to give when assured that others are doing the same and a fair outcome for all will result (Kolm and Ythier 2006). However, the variation at the level of the individual is greater. Partly this may be expected in data that has not had its individual extremities averaged out. But also my closer analysis showed that unobservable prosocial motivators and also some of the observable factors (particularly those with a strong value-based motivational component) *override* the trust condition, driving giving even where the trust of the giver is low. In this, the power of the individual to act independently of her social environment may be seen. Individual attitudes and the social environment can be seen as two distinct variables associated with prosocial behaviours like giving. And although they are usually associated with one another, the conditions under which trust *in* others and giving *to* others are not mutually reinforcing one another might therefore represent points at which the balance of interpersonal cohesion in the civic sector may change, as will be discussed in the next section.

4.3 Discussion

Giving is a prosocial behaviour form, involving consideration for others in one's resource allocation decisions. In keeping with the literature, we might expect that giving behaviours flow from both

observable structural and unobservable cognitive social drivers. My regressions revealed that structural factors such as social ties and comparative socio-economic circumstances were indeed closely reflected in multiple giving behaviours. The cognitive, attitudinal component cannot be directly observed and added to a regression, important though it may be for determining whether relational ties tend towards being mutually beneficial and supportive or else restrictive and extractive. In order to see if there was any unobservable factor driving giving that would be compatible with the existence of an attitudinal component, it was therefore necessary to examine my regression residuals. Observable influences on multiple forms of giving were identified in regression analysis, the residuals were extracted, and then any further (unobservable) factor of influence could be identified through principal component analysis of the set of residuals. In applying this method, I indeed found evidence of an unobserved factor of importance acting on giving, compatible with the existence of attitudinal drivers.

It could be that these prosocial, considerate attitudes, manifested in real resource flows, comprise the 'trustworthy' behaviour upon which trust is founded. This would make giving one mechanism through which trust can be built, bringing people together in a more cohesive relationship. This connection between giving and the nature of the wider social environment is of significance. The social environment is heavily influenced by networks, norms and institutions, it is multi-faceted in nature, all-pervading in scope of influence, and can bring about both great good and great harm. This makes its quality extremely difficult to analyse and compare across different social contexts (Bebbington et al. 2004; Portes and Landolt 2000; Quibria 2003; Du Toit 2004; Woolcock and Narayan 2000). But although the way in which people interact is highly complex, we have seen that an important aspect of their overall pro-sociality, at least within the civic sector, is reflected in the decisions individuals make over the allocation of their time and money. Prosocial inclinations within the civic sector are manifest in giving behaviours. Thus in studying the impact that various socio-economic drivers have on *giving*, we can gain information about how these drivers are impacting pro-sociality more generally. The fact that multiple forms of giving, both more and less formal, are all influenced by the same drivers in tandem suggests that easier-to-measure manifestations of prosocial inclination like the giving of time and money may also be representative of less tangible forms of prosocial activity conducive to social cohesion. I research further how different forms of giving represent pro-sociality in Chapter 6. Chapter 6 also describes how giving measures might be aggregated to measure the pro-sociality of a *region.*

Trust, like giving, also reflects the quality of civic sector relationships. In terms of the way in which the drivers of giving also act as drivers of trust, we see that in most cases the two go together; factors that make people more trusting also make them more giving. One example from this data is group attendance: when people come together in ways that are mutually beneficial and supportive they become more trusting, whilst being connected and involved also stimulates their giving. Another two examples are age and length of time lived in a neighbourhood. Over time a person is able to forge

relationships that they both count on (they trust) and which are well maintained (they give). And for another example, having preferable personal circumstances in terms of money, no mortgage or good education is evidence that these are people experiencing a system that works for them. Not surprisingly then, those with such a rich set of assets feel more trust than those without, especially as their assets empower them to be more selective about their social circle. Their higher than average giving behaviours indicate that they are also motivated to give something back into this social environment.

All these are examples of factors which maintain a self-sustaining cohesive social environment; trust (based on the prosocial actions of others) and trustworthy behaviour (reflected in one's own prosocial (giving) contribution) are both in evidence. The trustworthy action (giving) is partly influenced by one's social environment; for example one must trust that the recipient will make good use of the gift. However I also identified a factor of significance that was *distinct* from the social environment, a factor that is consistent with the concept of prosocial *attitudes*. Whilst a person's values are certainly influenced by the social environment, his or her values may also rise above (or sink below) those of their social environment. This was seen in that a personal propensity to give, identified in the residuals, may be effective *even when the giver does not trust*.

This willingness to give *in spite of* the social environment and not *because* of it is potentially a game-changer, since it does not depend on pre-existent social conditions and yet it impacts the social environment experienced by others. Besides the propensity to give identified in the residuals, the influence of attitude can also be perceived in variables such as religious practice; making friends across religious and ethnic boundaries; or caring for family members. Women also gave more than men. None of the people to whom these variables applied trusted others more than everyone else did, and yet they all gave more than those to whom the variable did not apply, thereby expressing trustworthy behaviour patterns that bode well for the social environment in general.

Indeed, Uslaner (2000) argues that expanding trust (social cohesion) involves extending cooperative behaviours to people outside of one's usual trusted networks. Such behaviours require that a person gives without assurance of a positive response; that is, he or she is prepared to help without trust. We see evidence of this in our data, suggesting giving can actually contribute to trust. This is a point that Uslaner concedes when it comes to out-group giving, although his main focus is on state sector actions as he remains sceptical as to the extent to which the civic sector helps to shape the wider social environment rather than simply responding to it. Our work opens the option that causality might runs both ways, having found that although giving is associated to a great extent with the social environment experienced by the giver (and reflected in trust), it is also associated with personal, prosocial inclinations which to some extent may diverge from the norm; it is possible for a person to give without trusting and thus to change the status quo.

Literature abounds with examples of change working the other way also. An individual may be inclined towards antisocial or 'opportunistic' behaviours, in which he or she pursues personal gain without regard to the effects this has on other people. Where unconstrained by stable and effective institutions, such inclinations are found to lead to the disintegration of trust and cooperation to everyone's disadvantage (Grant 2001; Grugerty and Kremer 2002; The World Bank 2000; Woolcock and Narayan 2000; Dasgupta 2009; El-Said and Harrigan 2009). It is this capacity to pursue an agenda different from the status quo that might enable individuals to be agents of change in terms of the levels of social cohesion, whether that change is for the better or worse.

Overall, our analysis finds that an individual's prosocial inclination and her status within her wider social environment are two distinct elements which are associated with prosocial behaviours like giving. Giving behaviours are associated partly with the social environment (a person's circumstances relative to others and the connections they have with others). But we see that individuals may also choose to act or react within those circumstances in a prosocial (or antisocial) manner independently of their social environment; a decision likely to *impact* that social environment in some small way.

Should these two elements be found to interact in the following chapters, then we may conjecture that a willingness to give without trusting will change the 'trustworthiness-trust' balance such that trust improves over time. Conversely more individualistic motivations and behaviours will break it up. This is the hypothesis of Figs.3.3 and 3.4. In these models, giving flows provide a useful indicator of pro-sociality within the civic sector, and that they contribute to trust (social cohesion).

However the analysis of this chapter is not dynamic and although the findings so far do not negate either hypothesis, neither are they conclusive. Confounding effects are an issue we need to address, and the correlations of this chapter have not proven causality. Thus I go on to explore the question of interaction further in the following chapters. First I test whether the social environment impacts prosocial inclination and giving behaviours, and then I test the impact of giving behaviours on the wider social environment. The first part; the impact of a more cohesive social environment on prosocial motivation (manifest in increased giving) is explored via a lab-experiment and is presented in Chapter 5. Experimental data increases the credibility of the model regarding causation. Then in Chapter 7 I use longitudinal data in order to determine how giving behaviours, expressive of prosocial inclination, are associated with the way a person's social environment evolves over time.

Appendix 4A: Description of variables

Note that many of the variables had to be recoded so as to accommodate slight differences between the years, or else re-constructed for ease of interpretation.

Variable	survey code	Values (original or derived from the code(s) shown)	Response distribution (%)	Notes
Trust people in neighbourhood	strust	1= none of the people in your neighbourhood can be trusted 2= a few can be trusted 3= some can be trusted 4= many of the people in your neighbourhood can be trusted	 1.99 13.54 33.10 51.37	37,083 obs. Original variable inversely coded
Formal volunteering in the last 12 months (unpaid help towards the functioning of a group)	zforvol	0=no 1=yes	60.01 39.99	38,283 obs.
Informal help in the last 12 months (help offered individual to individual outside of family)	zinfvol	0=no 1=yes	41.53 58.47	38,283 obs.
Civic participation in the last 12 months	zcivpar	0=no 1=yes	63.18 36.82	38,283 obs.
Total amount of money given to charity in the last 4 weeks	givamt givamtgp	0=do not give 1=<£5 2=£5-£9.99 3=£10-£19.99 4=£20-£49.99 5=£50+	26.29 20.28 14.84 16.63 15.05 6.90	37,313 obs.
Gave to charity in the last 4 weeks	ggroup1 to ggroup12 givech	0=did not give to charity 1=gave to charity	25.58 74.42	38,254 obs.

Appendix Table 4Ai Dependent variables

Variable	survey code	Values (original or derived from the code(s) shown)	Response distribution (%)	Notes
House tenure (applicable to the household reference person)	hten1	House owned outright	34.40	38,283 obs. Presented as dummy variables with renting or any other form of tenure as the base tenure
		House owned with mortgage	33.71	
		Renting or any other form of tenure	31.89	
Time lived in the community	slive7	1=less than one year	5.53	38,273 obs.
		2=1-2 years	10.34	
		3=3-5 years	13.26	
		4=6 years or more	70.87	
Household size (number of people sharing shopping and cooking)	xdmhsize dmhsize	1=live alone	29.40	38,283 obs.
		2=2 persons	39.06	
		3=3 persons	14.29	
		4=4 persons	11.62	
		5=5 or more persons	5.63	
Partnership	rlivewith marstat	Cohabiting	7.83	38,283 obs. Presented as dummy variables with no partner as the base
		Married / civil partnership	46.93	
		No partner	45.24	
Caring responsibilities for family outside of one's own household	rcare	0=does not apply	86.69	38,283 obs.
		1=applies	13.31	
Takes part in a formal group (with or without running it)	fgroup17	0=not part of a group	41.32	38,281 obs.
		1=part of a group	58.68	
Mix (hold informal conversations) with people of different ethnic or religious groups. Venues for mixing include in one's homes, eating/ drinking places and groups or clubs. Mixing in venues where people have less choice about who they mix with was not considered.	zmxoft1 zmxoft4 zmxoft5	0=little or no mixing	45.37	38,254 obs.
		1=mix at least once a month in the past year	54.63	
Age category	rage9	16-24 years	8.08	38,276 obs. Presented as dummies with age 16-24 (the youngest age) as the base age
		25-34 years	14.52	
		35-44 years	18.15	
		45-54 years	16.25	
		55-64 years	17.08	
		65-74 years	13.59	
		75-84 years	9.34	
		85+ years	2.99	
Sex	rsex	1=male	44.48	38,278 obs.
		2=female	55.52	
White vs ethnic minority	ethnic6	0=non-white	9.24	38,270 obs.
		1=white	90.76	
Religion and practicing or non-practicing	relig relact relstat	Practicing Christian	26.18	38,193 obs. Presented as a dummy variables with no religion (17.73%) as the base variable
		Non-practicing Christian	48.46	
		Practicing other religion	5.06	
		Non-practicing other religion	2.57	

Variable	survey code	Values (original or derived from the code(s) shown)	Response distribution (%)	Notes
Own income	rincome	0=no income	2.85	33,541 obs.
		1=under £2,500	6.33	
		2=2,500-£4,999	9.22	
		3=£5,000-£9,999	20.12	
		and so on at £5,000 intervals		
		until	74.36%	
		11=£45,000-£49,999	below	
		Then larger categories	£25,000.	
		12=£50,000-£74,999	94.77%	
		13=£75,000-£99,999	below	
		14=£100,000+	£50,000	
Partners income (0=no partner *or* partner with no income)	pincome	0	54.46	36,281 obs.
		1=under £2,500	3.13	
		2=2,500-£4,999	4.25	
		2=£5,000-£9,999	6.69	
		and so on at £5,000 intervals		
		until	85.29%	
		11=£45,000-£49,999	below	
		Then larger categories	£25,000.	
		12=£50,000-£74,999	96.63%	
		13=£75,000-£99,999	below	
		14=£100,000+	£50,000	
Qualifications	zquals	1=no formal qualifications	20.45	29,857 obs., since this variable excludes all persons aged 70+
		2=any formal qualification up to degree level	54.35	
		3=degree or equivalent	25.20	
Employed (vs every other occupation or none)	dvilo4a	0=any other occupation or none	46.99	38,274 obs.
		1=employed	53.01	
Unemployed (vs every other occupation or none)	dvilo4a	0=any other occupation or none	97.17	38,274 obs. Caution: small number may compromise results.
		1=unemployed	2.83	
Long-term illness or disability limits activities	zdill	0=no	77.18	38,194 obs.
		1=yes, health limiting	22.82	
Survey year	survyear	1=2007-08	24.39	38,283 obs. Presented as dummy variables with the first year as the base year
		2=2008-09	24.38	
		3=2009-10	24.31	
		4=2010-11	26.92	
Government office region	gor	North East	5.81	38,283 obs. Presented as dummy variables with the West Midlands (a central point) acting as the base variable
		North West	13.56	
		Yorkshire and the Humber	9.89	
		East Midlands	8.69	
		West Midlands	9.52	
		East of England	10.33	
		London	11.09	
		South East	15.17	
		South West	9.81	
		Wales	6.10	

Variable	survey code	Values (original or derived from the code(s) shown)	Response distribution (%)	Notes
Deprivation: Index of multiple deprivation (based partly on the variables below. Data pertains to the area the respondent comes from.)	dimd7 dimd	Deciles, 1-10 1=least deprived . 5 . 10=most deprived	13.35 12.66 13.06 … 7.09 6.89 7.49	35,894 obs. The England and Wales indices of multiple deprivation are not identically constructed. Excluding Wales loses 1,803 observations.
Communal income: Index of multiple deprivation, category for income	dinc7 dinc wdinc winc7	Deciles, 1-10 1=least deprived . 5 . 10=most deprived	12.40 13.02 … 6.84 7.39	38,229 obs. Figures based on the % persons in an area receiving certain types of government income support.
Employment deprivation in area	demp7 demp wdemp dwemp7	Deciles, 1-10 1=least deprived . 5 . 10=most deprived	11.98 13.35 … 6.93 7.93	38,229 obs. Based on unemployment records
Health deprivation in area	dhea7 dheas wdheas dwhea7	Deciles, 1-10 1=least deprived . 5 . 10=most deprived	12.92 13.28 … 7.33 7.75	38,229 obs. Based on hospital and doctor records including mood and anxiety disorder and premature death
Education, skills and training in area	dedu7 dedu wdedu dwedu7	Deciles, 1-10 1=least deprived . 5 . 10=most deprived	12.23 13.24 … 7.34 7.29	38,229 obs. Based on qualifications, school absence etc.
Barriers to housing and services	dhou7 dhou wdhou dwhou7	Deciles, 1-10 1=least deprived . 5 . 10=most deprived	13.40 13.37 … 7.35 6.51 6.72	38,229 obs. Based on access, affordability, homelessness
Crime: Index of multiple deprivation: category for crime and disorder.	dcri7 dcri dwcri7	Deciles, 1-10 1=least deprived . 5 . 10=most deprived	13.44 13.63 … 7.26 6.86	37,697 obs. Based on reported crime statistics
Living environment	denv7 denv wdenv dwenv7	Deciles, 1-10 1=least deprived . 5 . 10=most deprived	13.62 12.54 … 6.82 6.32	38,229 obs. Based on poor housing condition, no central heating, air quality and traffic accidents

Appendix Table 4Aii Independent variables

Appendix 4B: Algebraic model[4]

Let the regressors be described as:

(1) $y_{ij} = b_{i0} + \sum_{k=1}^{45} b_{ik}x_{kj} + \sum_{l=1}^{5} c_{il}z_{lj}$

Where

i = 5 endogenous variables (volunteering, informal help, civic participation, giving to charity and trust)

j = household representative/interviewee

k = 45 observed exogenous variables

l = 5 unobserved factors

Thus y_{ij} represents the dependent variable given the five models (four modelling different forms of giving and one modelling trust) and given the household representatives interviewed; x_{kj} represents the value of the k^{th} observable characteristic relating to the j^{th} household; and z_{lj} represents the l^{th} unobservable characteristic relating to the j^{th} household. The coefficients *b, c* are fixed parameters which represent the giving and trust impact of the individual characteristics, both observed and unobserved.

b_{i0} represents the constant;

$\sum_{k=1}^{45} b_{ik}x_{kj}$ represents the influence of the observed independent variables, given the model and the interviewee, the same interviewee demographics being used in each model; and

$\sum_{l=1}^{5} c_{il}z_{lj}$ represents the influence of unobserved independent variables. There are five sets of residuals from the five regression models, and for this reason principal component analysis computes five factors representing unobserved influences on various forms of giving and on trust. Under principal component analysis, the five unobserved factors influencing the fall of these residuals are linearly uncorrelated (see 4b); they vary independently of one another. The implication then is that they are different from one another; they are differing unobserved variables with differing impacts on giving and trust behaviour.

Now let these residuals be notated as:

(2) $u_{ij} = \sum_{l=1}^{5} c_{il}z_{lj}$

[4] This algebraic model was written by Prof. Mark Casson of the University of Reading. It was also Mark's suggestion to identify an unobserved propensity to give using the methods described in this chapter.

The model is now be expressed as:

(3) $y_{ij} = b_{i0} + \sum_{k=1}^{45} b_{ik} x_{kj} + u_{ij}$

The following two assumptions apply:

(4a) $E(z_{lj}) = 0$

(4b) $E(z_{lj} z_{mj}) = 0 \; if \; l \neq m$

$= \sigma_l^2 \; if \; l = m$

(If *l* represents one of five factors, then *m* refers to any of those five factors that *l* is not currently representing)

Given equations (1) to (4), (5) is a measure of co-variation between the residuals of the five models (that is, the expected eigenvalues):

(5) $E(u_{lj} u_{mj}) = \sum_{i=1}^{5} c_{li} c_{ki} \; \sigma_i^2$

($c_{li} c_{ki}$) represents the five weights attached to the five factors that make up the unobserved variance in giving and trust (σ_i^2)

A factor that is statistically significant and that affects every type of giving represents an unobserved 'propensity to give.'

Chapter 5. **An experimental test of the interaction between the social environment and giving behaviours**

5.1 Introduction

Chapter 4 revealed that giving behaviours are associated partly with the social environment, and partly with a person's own prosocial preferences, which may sometimes bring a person to give *in spite of* her social environment and not because of it. My hypothesis of Fig.3.4 suggests that there is an interaction going on between these two, and that the prosocial character of the interaction can, with respect to the civic sector at least, be measured by giving flows. This chapter, Chapter 5, begins to explore the evidence for such an interaction. I consider here how adjustments to the social/relational environment affect an individual's propensity to give, positively impacting a third party.

I used a lab-experiment to test the sensitivity of giving to different social environments. Two different social environments were created by manipulating specific relational parameters of influence on how connected the participants felt to one another. After two groups of participants had carried out an identical set of tasks but in the different social environments, it was possible to see how those differences affected their individual propensity to give to a completely unrelated cause (to donate to charity).

Finding an interaction between one's social environment and one's propensity to give may help us to understand how social cohesion develops over time. For example a prosocial, cohesive relational environment might affect the weight each individual puts on other people's interests or communal interests over their own private interests. Their shift in personal prosocial inclination affects their prosocial behaviour patterns (we see this reflected in their giving behaviours), and this prosocial action feeds back positively into the character of the wider relational environment. Whether they help others or not, their choice will still impact the social environment and the subsequent decisions of others. Prosocial actions influence the social environment positively, and antisocial actions influence it negatively. It could be then that an interaction between the social environment and the prosocial inclinations of the individual creates positive or negative cycles that lead to increasing or decreasing degrees of prosocial behaviour.

The idea of an interaction between individual behaviours and their social environment is not new, as was outlined in Part 1 (Berger and Luckman 1966; Giddens 1984). The interaction has rarely been a point of focus in discussions of social capital formation however, despite the fact that the existence of this interaction can be perceived in almost any social capital case-study, and has even been described in discussions of trust formation (see Dasgupta 2009). Having said that, Krishna and Uphoff (2002) do distinguish between 'structural' and 'cognitive' social capital, and discuss how visible relational structures and norms interact with individual preferences and pre-dispositions to determine the way

future relational structures are likely to develop. DeScioli and Krishna (2013) also highlight the link between the social environment and cognition: they found that in a hierarchical context, people tend to give more resources to figures of greater authority. In a competitive context, people give more to person's providing a return. In a cooperative context, they give more where needs are greater. Whilst DeScioli and Krishna's experiment shows that the social context indeed influences a very personal decision on giving, it does not tell us whether giving behaviours reflect relational *proximity;* a more cohesive social environment stimulating a greater propensity to give. This study adds to the literature then by deliberately setting out to test the link between a closer or more distant relational environment and individual prosocial preferences.

Specifically I test whether differences in a social/relational environment can evoke or suppress a willingness to give to a completely unrelated cause. The experiment consisted of four treatment groups. All four groups underwent the same set of exercises, but two groups conducted their exercises in a closer social/relational environment and two in a more distant social/relational environment. Half of the subjects in each social environment were further treated with an unannounced doubling in pay. Thus the four groups, each containing 10 participants were treated as follows:

Group 1: Close relational experience without windfall payment;
Group 2: Close relational experience with windfall payment;
Group 3: Distant relational experience without windfall payment;
Group 4: Distant relational experience with windfall payment.

After this treatment I measured the effect that these differences had on mood as well as on levels of giving to charity at point of payment and exit from the experiment.

The experiment helps us to address three main issues: Firstly I test whether a close versus a more distant relational experience yields a change in individual behaviour. I test the effect of the social environment on an individual's mood and on the way that individual chooses to allocate his or her own resources. If a change in the social environment changes that individual's decision to give, we may conclude that prosocial preferences (conducive to social cohesion) may be adjusted; social preferences are not a static endowment for which no policy can be relevant.

Secondly I want to see whether these giving behaviours are sensitive enough to the relational environment to be used as its proxy. Should I find that giving behaviours respond closely to changes in a relational environment, then it would suggest that giving provides us with useful information about the prosocial, cohesive qualities of relationships in the civic sector, these being composed of both the prosocial motivation of the individual and the nature of the social environment that he or she is part of. In other words, we might evaluate the pro-sociality of the civic sector by the resources that its members are allocating to one another. The complex social stock can be quantified using easy-to-

measure giving patterns. Such a finding might offer decision makers a tool by which to evaluate the effect of their interventions on pro-sociality and, ultimately, on social cohesion.

Thirdly, the experimental design included an endowment differential so that I could respond to the potential objection that people only give more when they are made to feel good, irrelevant of whether the feel-good factor arises from relational considerations or non-relational matters. By doubling the pay of half the participants in each relational environment, I introduced monetary considerations into an experiment that otherwise differed only in terms of the way people treat one another socially. The results will reveal whether it is principally the relational environment that affects giving behaviours, or whether making people better-off in monetary terms also stimulates people to give. There may even be an interaction between money and the social environment in terms of a joint impact on giving, since the endowment that one party has relative to another will affect the character of that social environment (it affects a person's sense of fair-play as well as affecting one party's feelings towards the other as a result of their position in the social hierarchy; see Wilkinson and Pickett (2009); Bartolini *et al*. (2013)). The results will add to our knowledge of where we need to focus our attention in order to increase prosocial behaviours.

In addressing these three issues the experiment contributes to our understanding of civic sector relationships. We gain insight into whether it is possible to *influence* prosocial inclination. We see whether giving offers a way of evaluating the pro-sociality of civic sector relationships. And the inclusion of an endowment differential confirms whether it is really relational factors, not just any mood-altering boost to welfare, which fosters prosocial behaviours. In addition to these points, the experiment addresses the issue of confounding effects, showing that giving indeed interacts with the social environment.

5.2 Methodology

Fig.5.1 summarizes the order of events during the experiment. All participants completed a demographics questionnaire and then carried out a series of tasks in a closer or else more distanced relational environment. Afterwards, in an identical, non-interactive social environment they were confidentially informed of their pay (some getting the promised minimum, others getting more). After this they completed private mood surveys, a question about how much they would want to see their partner again, and were provided with the option to give to charity at pay and exit.

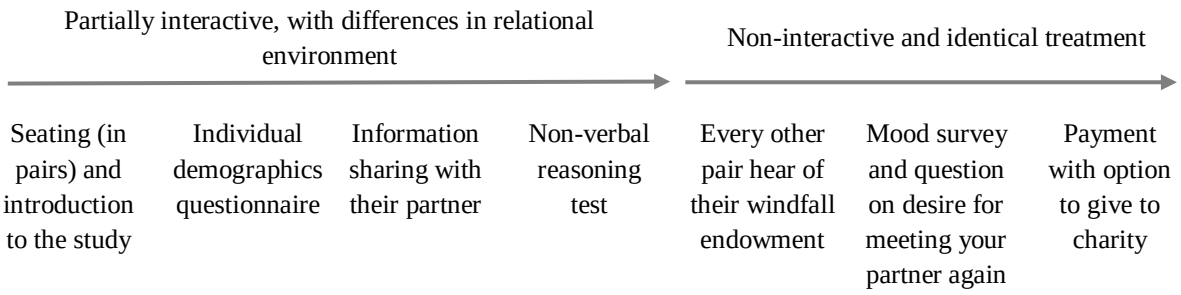


Fig.5.1 Order of events

To produce the differences in the relational environment, I manipulated conditions according to the five relational parameters identified by Schluter and Lee (2009). Table 5.1 outlines these relational parameters and how treatment differed between the two groups.

Relational parameter and description	**Close relational experience**	**More distant relational experience**
Directness: communicating in the most direct way possible	Partners and invigilators used all modes of communication (non-verbal, verbal, written)	Partners and invigilators were restricted in terms of *verbal* communication, although they still met face-to-face.
Multiplexity: getting to know a person in more than one role or context	Partners shared information on multiple aspects of their life.	Partners shared information on career related subjects only.
Commonality: building on purpose and values that are held in common	After sharing information about them-selves, partners exchanged ideas on an interest they had in common. They also worked on the non-verbal reasoning task together.	After sharing information about them-selves, partners identified ways in which they differed from each other. They undertook the non-verbal reasoning task alone.
Parity: maintaining a fair balance of power in the relationship	Invigilators were easy-going and interactive. They immediately helped students find the right seats. They gave out and collected papers personally, serving the group.	Invigilators distanced themselves from students in dress and demeanour. After everyone was seated, they ordered reseating. They expected papers to be brought to them.
Continuity: the frequency, regularity and duration of the relationship	Hard to engineer in a one-off experiment, but some control was provided for continuity by asking people whether they would want to meet their partner again following the experiment.	

Table 5.1 Relational differences between the groups

Schluter and Lee identified these parameters primarily for the use of managers and executives in the state and market sector, but they correspond to wider research into factors affecting the proximity relationships between people and the measurement of prosocial inclinations in giving:

In terms of directness and multiplexity, talking together and talking on a broad range of subjects are found to be key to creating closeness in personal relationships (Hess *et al*. 2007). Social structures characterised by complexity may seem superfluous to requirements in one set of circumstances, but in the event of a shock to those circumstances, such relationships prove to be more resilient and

adaptable (Boyd 2014). Whilst written messages may compliment verbal communication in a close relationship, the choice of whether a person communicates information verbally or in written form corresponds precisely to the closeness of the relationship. The more distant the relationship, the more likely it is that people will write rather than talk (Tillema *et al*. 2010). Grootaert and Van Bastelaer (2002), Krishna (2002), Grant (2001) and many others distinguish between 'bridging' relational ties that cross social boundaries, and bonding ties that are close and committed. Although bridging ties are valuable in terms of accessing information and opportunities, they are often are often weak, uni-dimensional, specific to one particular purpose and easily broken. Bonding ties are stronger, corresponding to the more 'direct' and 'multiplex' elements in Table 5.1. They are indispensable in providing support in time of need and empowerment for a positive engagement with those in the wider social environment. Important to this work, bonding ties are *closer* relational ties.

And at any level, getting to know more about a person makes it easier to find common interests, and the consideration of common goals is a pre-requisite to pro-social/cooperative thinking (Bardsley 2000; Sen 2009; Grootaert and Van Bastelaer 2002). People invest most in those they identify with or whose interests they identify with (Levy-Garboua *et al*. 2006; Durlauf and Fafchamps 2004), making the identification of common goals essential to drawing people together.

Lack of parity between people is one of the reasons that cooperative endeavours often fail: the weaker party cannot put pressure on the stronger party to constrain their rent-seeking opportunities for the good of all, so in order to minimize unfair polarization, their strategy must be to minimise the cooperation (Adhikari and Goldey 2010; Vajja and White 2008; Du Toit 2004). Wilkinson and Pickett (2009) also show how lack of parity (inequality) leads to social distancing and eventually to an increase in antisocial behaviour.

And finally, continuity matters because when a person's long term interests are wrapped up in a certain community of persons, then it makes sense to maintain a positive relationship with those persons (Levy-Garboua *et al*. 2006; Fehr and Schmidt 2006; and Durlauf and Fafchamps 2004). This is why those who are established long term in one geographical area tend to be more involved than those who move from place to place (Schneider and Weber 2013).

We may perceive that all these elements overlap to determine one factor: relational proximity. It is not usual practice to change many things at once in an experiment, but here I altered the social parameters in a unified direction to create one single factor of comparison: a 'close' relational environment in which relational distance was reduced compared to a more 'distant' relational environment in which relational distance was emphasised.

My hypothesis is that the 'closeness' or 'solidarity' of a relationship may be reflected in how much one party factors the other into their decision making process – a process evident in the way an individual allocates his or her own resources into a common activity or for the benefit of other people.

Thus in this experiment, I specifically test whether a change in relational proximity affects the 'other-centred' way in which people handle their resources. Money was given to a third party - to charity, not to other students, so the stimuli can be monitored in terms of other-centeredness in general; it is not just an in-group strategic manoeuvre. The test reveals then whether giving behaviours are a sensitive barometer of the changes in relational parameters.

Just before the completion of the mood questionnaire and the question on wanting to meet your partner again, half of both groups, unbeknown to the other half, received a message saying 'Congratulations! You picked one of the lucky seats! It was decided that whoever sits at this table should get double pay! So now you will get £10 for your participation instead of £5.' In this way the welfare of some students was manipulated independently of the relational environment just undergone. The action allows us to see how monetary endowments interact with the relational factors. Overall, the outcomes of each treatment were measured in terms of giving to charity, a desire to meet one's partner again, and mood.

'Before and after' mood surveys might be preferable, but people may respond negatively to answering the same questions twice, and/or they may anchor their second set of responses to their first. Instead I took advantage of having multiple participants, which helps to control for confounding effects, and observe the *average* difference in mood between the treatment groups.

In advance, students were told only that this was a 40 minute study to 'investigate human behaviour in specific contexts'. On the consent form, it was stated that, 'you will be asked to share some non-intrusive and non-sensitive information about yourself with another person, and then to engage in a straightforward task. You will also be required to answer two short, private questionnaires regarding a minimal of demographic information and some subjective opinion.' To encourage participation, students were further told, 'You will gain first-hand insight into experimental social research methods. At the end of the exercise you will be offered a more detailed account of the different elements of the study and (eventually) the results. You will also receive at least £5 cash for your participation on completion of the study.' The study was only open to first year under-graduates and their rights to withdraw etc. were of course detailed. The full consent form is available in the appendix.

Two similar classrooms in the same building were chosen for the experiment, with the seating and tables prearranged in pairs and numbered, more tables being prepared in both rooms than students to fill them. The papers for use in the experiment were already on the tables in both rooms, but face down with *'Do not turn over these papers or open any envelopes until told to do* so' printed on the top.

On presentation in the foyer outside the classrooms, student consent forms were checked or filled in. The students were then divided into alternate rooms, men in order of arrival, and women in order of arrival. This was to produce a split of minimal bias. Bias in the composition of the groups was also minimised by requesting people to sit male-female where possible and female-female only where

necessary. I also let people choose their own seats, without their knowing that every other pair of seats was pre-determined to receive a bonus payment. This randomized the allocation of windfall benefits. Electronic networking during the experiment was banned to avoid external influences. All participants were undergraduates in their first week of the university term, and were told to sit next to persons they did not already know. This was to ensure a lack of pre-existent relationship between participants. This, plus similarities in their stage of life eliminated many possible biases between the groups. Of course a group of students is not representative of the UK's population, but for an experiment we only need the treatment groups to be *comparable*, not representative. My aim is simply to see how the treatment affects the outcome in otherwise identical conditions.

In one room the close relational environment was created, and in the other, the distant relational environment. 20 students were sent to each room, and of those, every other pair (10 students in each group) received a windfall of double pay. There were two invigilators in each classroom as students entered, one to speak, and the other a timekeeper. The timekeeper was to ensure that the lengths of the exercises were exactly the same in both classes, making the groups comparable. There is a risk that questions asked in the survey might set a tone, putting the respondents in mind of circumstances or ideologies that bias their giving decisions. For this reasons, questions on financial situation and religion were asked right at the beginning of the experiment, and more detailed questions on ideology were avoided. Table 5.2 documents the parallel progression of events in each room, with the relational differences in treatment clearly indicated. Details of the contents of each paper and the wording of invigilator instructions may be found in the appendix.

Stage of experiment and time allowed	**Close relational environment**	**Distant relational environment**	**Purpose**
Arrival	The 2 invigilators were friendly, approachable and casually dressed. As students arrived, they were encouraged to fill up from the front and according to the directions displayed on the screen. The PowerPoint slide read: *University of Reading Research Study. Please put away and silence mobile devices. Please sit in twos: either male-female or female-female, no men together. Sit next to someone you do not already know.*	The 2 invigilators were formal; distanced in demeanour and in smart dress. No smiles. As students arrived, the invigilators completely ignored them, speaking only to each-other or being engrossed in paperwork. The students therefore seated themselves randomly. Displayed on the screen was the following PowerPoint slide: *University of Reading Research Study. Please put away and silence mobile devices. Please maintain complete silence throughout this exercise.*	Pairing people male-female where possible an in all treatments was to minimise differences in partners in terms of gender dynamics. People were paired with strangers to exclude pre-existent or strategic relational dynamics.

When no more students arrived, the signal to start programme was given by a third invigilator	Silence not kept. To keep time with the other group, invigilators gave a general welcome message and introduced the experiment along the lines of information already received in the consent form. Correct seating was checked and enforced.	Silence kept. Invigilators finally addressed the group with, "This research study is about to begin. You need to maintain complete silence throughout this exercise. You need to sit in twos, filling up from the front. Sit next to someone you do not already know, and no two men should sit together. Keep the silence and move as quickly as possible NOW." Students were made to quickly reseat in a way corresponding to the other group.	The rule of silence in the distant group excluded the most direct form of communication between student pairs, addressing the 'directness' element of relational dynamics. Differences in demeanour and reseating in the distant group was a power game, enforcing relational distance between invigilator and student and addressing the 'parity' element of relational dynamics.
Paper 1: General information. 45 seconds	Invigilators in each group instruct the students to turn over the first paper. Paper 1 outlined requirements like answer questions truthfully, comply with the invigilators etc. Attention was drawn to the participant's desk number which became their unique identity number. During this time a PowerPoint slide showing the consent form was projected.		Same paper in both groups. Silence maintained in the distant group as above.
Paper 2: Demographics questionnaire. 1 minute	Invigilators in each group instruct the students to start on paper 2. Paper 2 comprised a confidential questionnaire of semi-sensitive demographics (age, gender, race, financial situation and religious tendencies) that might influence giving and which should therefore be controlled for.		Identical in both groups.
	At the end of the time, invigilators went round taking in paper 2	Invigilators told students to fold their paper (for confidentiality) and pass it to the front.	The difference in service addressed the 'parity' element of relational dynamics
Paper 3: sharing. 3 minutes for filling in information individually, and 5 minutes for swapping that information with student partner.	Paper 3 comprised 12 non-intrusive questions about the student. In the distant group these were only about career related subjects (study, former employment or volunteering, university choices etc.). The close group included a wider range of subjects however. In the close group the information was discussed verbally and the pairs identified and wrote down something that they had in common and could do in support of this interest. In the distant group, after completing the information sheet, the pairs swapped papers and read what the other had written about them-selves. Each partner then considered 3 ways in which they differed from the other person and recorded these differences on the other person's paper. They then returned the information for their partner to read.		The differences in communication style addressed the 'directness' element of relational dynamics. Sharing information only on career, or also in other contexts addressed the 'multiplexity' element of relational dynamics. Finding things in common or things that differ addressed the 'commonality' element of relational dynamics.

	At the end of the time, invigilators went round taking in paper 3	At the end of the time, invigilators told students to pass their papers to the front.	
Paper 4: Non-verbal reasoning test (used with permission from ElevenPlusExams). 10 minutes	A non-verbal reasoning test was tackled in *pairs*.	The same non-verbal reasoning test was carried out *alone*.	Working in pairs *versus* working alone addresses the 'commonality' element of relational dynamics.
	Students in both groups were informed that they would not be required to share their results with other students in the room.		
PowerPoint slide projected with the answers. 3 minutes	Pairs were allowed to talk through their answers. At the end of 3 minutes, invigilators went round taking in the marked question paper.	Individuals marked their own answers. At the end of 3 minutes, invigilators told everyone to pass the marked question papers to the front.	An attempt to avoid competitive dynamics was to let people mark their own and avoid sharing the results.
The differences in relational environment ended here. From here on, the group environment and student tasks were identical so as to avoid any biases in giving arising from 'the power of ask' (Bekkers and Wiepking 2007). Invigilators were formal but polite. Students worked alone. Complete silence was maintained in both groups.			
Envelope with paper 5: Mood survey and question on desire to meet your partner again, together with windfall pay announcement for some. 3 minutes	The students opened the envelopes on their desks containing this questionnaire. Every other set of tables in each room had a paper stapled to the front of the questionnaire announcing that they were in 'lucky seats' selected for double pay (£10 instead of £5). Those without this windfall however did not know that others had more than them. The questionnaire asked: (1) the extent to which the respondent would want to meet their partner again; and (2) Their mood of the moment, as measured by a Positive and Negative Affect Schedule (PANAS).		The mood survey came at this point to check how mood and feelings towards one's partner had been influenced by the relational treatment and the windfall bonus.
	Paper 5 taken in /returned to the envelope (to assure privacy) and passed to the front		
Envelope 6 containing money, receipt and a charity slip. 2 minutes were allowed to complete these slips from the time the envelopes were handed out	A PowerPoint instruction was projected onto the screen and invigilators read it exactly. *'Thanks for your participation. We are going to hand out the money now.* *The University of Reading requires that everyone signs a receipt and you will also have an opportunity to make a donation to charity should you wish. So please could you keep the silence whilst the money comes round, open your envelope, and fill in the very last slips.'* In both groups, all invigilators went round handing out the pre-prepared and numbered envelopes to the right tables.		To see how the differences in relational treatment influenced giving, controlling for mood and for endowment.
Signed receipts were then collected in and kept separately for the sake of anonymity.			
The participants could remove their money from the envelope (which contained a mix of small and larger denominations), leaving behind anything they wanted to donate to charity. There was also a charity slip to fill in stating whether or not people wanted to give, how much they wanted to give and who they wanted to give to (selecting from 9 widely varying but well known charities).			
The groups were then dismissed.			
Information sheets on what the study was all about were handed out as people exited the room, and students were told they could ask any further questions in the foyer outside.			

Table 5.2 Progression of experiment by relational environment

To ensure that the students did not influence each other in their decision to give I had the following precautions in place: (1) No talking. Students had been working individually and in silence since the mood survey, which means for several minutes; (2) The envelope was A5 size – large enough for people to choose coins without being seen by their partner; (3) Everyone had to fill in slips from the envelope whether they donated or not; and (4) all the envelopes had to remain behind, with only the money *not* being donated being handled by the students. These measures made it easy for students to donate or not to donate without anyone else being able to observe their choice.

I could also check that these measures were sufficient by observing who gave and where they were sitting. I found that in nine occasions neither partner gave. In eight occasions one person out of the partnership gave. And only on three occasions both persons in a partnership gave. This provides assurance that the decision to give had not been biased by people having somehow seen what their neighbour was doing and just doing the same; my observations on how giving responds to the relational environment are independent.

This is a 2x2 experiment, the key factors being differences in relational proximity and endowment. Care was taken to avoid other differences in treatment between the groups, with the tasks being of the same length and cognitive demand so as to maintain a fair basis for comparison. Competitive dynamics were also avoided, since introducing competition (market norms) in itself suppresses cooperation and giving (Ariely 2009; Kolm and Ythier 2006). Even with the windfall payment, the idea of 'lucky seats' was invoked to keep the spirit away from competition. In everything to do with money, the treatments were identical in both groups. I could check there was no bias in the composition of the groups by considering the spread of demographics such as age, race, gender, religious practice, financial pressures, life-experience, test-scores and so on between groups.

5.3 Results and discussion

First I consider how differences in the relational environment and monetary endowment affect giving, and then how they affect mood. The choice of charities students could opt to give to were taken from various websites citing popular charities in Britain, and selecting nine charities that represented the widest possible range of interests (Table 5.3).

Charity	N° students donating	total donated
Cancer research	6	£11.10
NSPCC	2	£ 7.00
RSPCA	2	£ 6.00
Amnesty International	1	£ 5.00
Greenpeace	2	£ 3.00
Red Cross	1	£ 1.00
Salvation Army	1	£ 1.00
Oxfam	0	-
RNLI	0	-

Table 5.3 Donations made to charity

Giving to charity is a prosocial behaviour form in that it involves one party in a positive interaction with another party. Since giving is to a third party and not to one's partner, it offers more powerful evidence of other-centred motivations in play; there is no direct, reciprocal motivation behind the decision to give. We are measuring then whether the relational proximity has an impact on prosocial motivations also towards people far away.

All results were subjected to tests of statistical significance, using a chi-squared test for proportional differences and a Mann-Whitney test for unrelated samples. OLS was used to determine the statistical significance of unrelated samples with more than 2 groups. Figs.5.2 to 5.5 display histograms of the choice people made about giving to charity by treatment group. My hypothesis suggests that giving behaviours will respond to the relational environment, and the results confirm this.

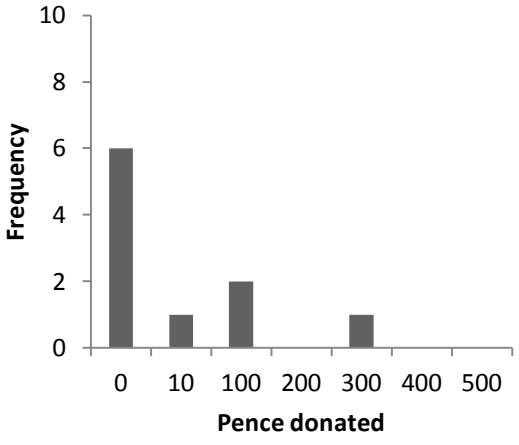


Fig.5.2 Close environment, no windfall

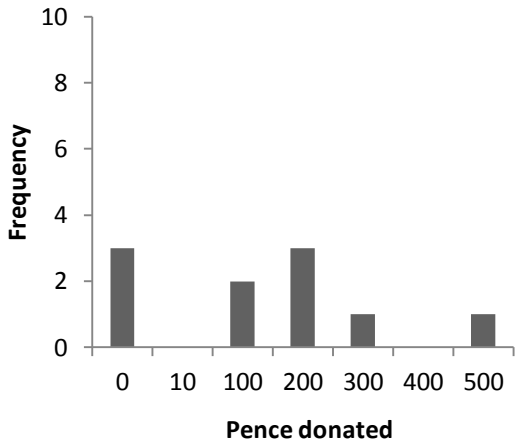


Fig.5.3 Close environment, windfall

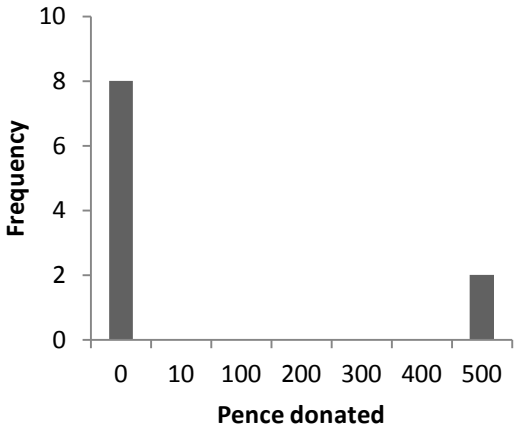


Fig.5.4 Distant environment, no windfall

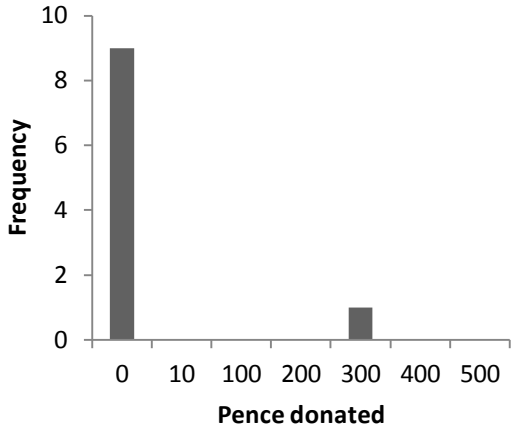


Fig.5.5 Distant environment, windfall

Sections 5.3.1 to 4.3.3 go on to discuss these results in more detail, examining particularly how endowment differentials interact with giving in each relational environment and also how mood responds to each of the treatments. As expected, relational proximity positively influenced giving. I was also expecting that more money would stimulate more giving and would have a positive effect on mood, but neither of these expectations were met. As is described in the following sections, it turned out that these expectations were negated by the largeness of the impact of relational proximity as it interacted with these factors. First the results are described, and then in Section 5.3.4 a table summarises the key results with their variation and level of significance.

5.3.1 The effect of the relational environment and endowment on giving

Figs.5.6 and 5.7 show the proportion of individuals making donations as influenced by the relational environment and by the windfall bonus. The number of observations in each category and sub-category is shown in brackets.

Fig.5.6 Likelihood of making a donation by relational environment and windfall endowment

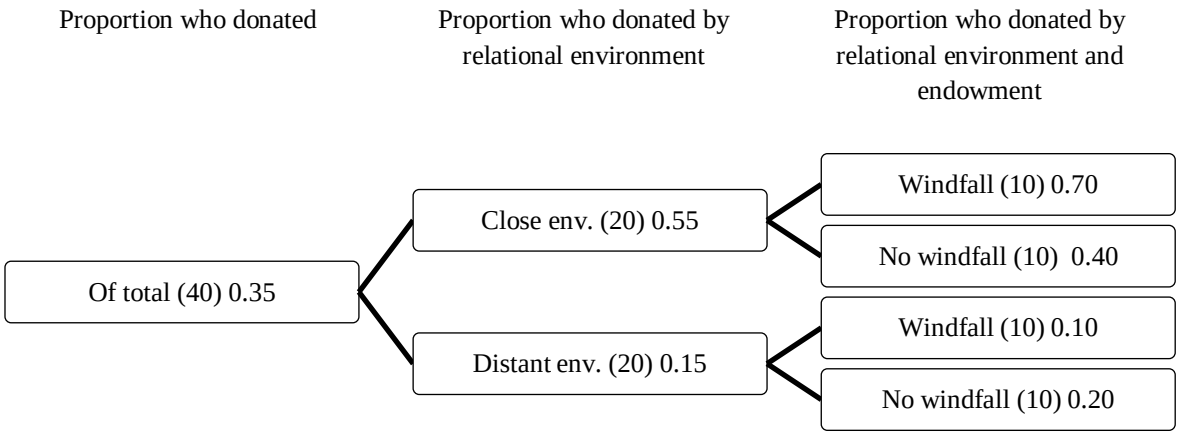
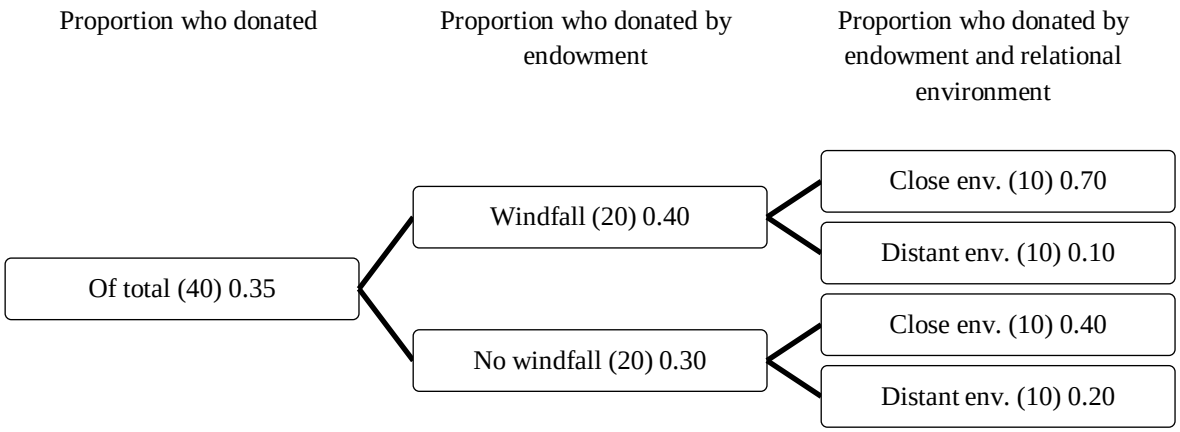


Fig.5.7 Likelihood of making a donation by windfall endowment and relational environment



From figs.5.6 and 5.7 we see the proportion of persons donating was influenced much more by the relational environment than by payment differentials. 11 people out of 20 gave to charity following a close relational experience, and only 3 people out of 20 following a more distant relational experience. On the other hand, higher payments result in 8 persons donating to charity as opposed to 6. The difference in relational environment had a statistically significant impact on the proportion of people donating (Chi-squared test p-value 0.008), whilst the difference in payment did not have a statistically significant impact (Chi-squared test p-value 0.507).

The interaction between windfall payment, relational environment and giving is worthy of a closer look however. In the distant relational environment only 1 in 10 persons getting a windfall income actually donated to charity whilst in a close relational environment 7 in 10 better-off persons gave to charity. The endowment differential was *only* effective in the context of a close relational environment. Without a close relational environment, extra money had an insignificant and even a negative impact on giving. So it is not money on its own that makes people give; it takes relational motivators to bring people to part with that money. However the *combination* of close relational environment and unequal endowment appears to be important. Uninfluenced by any windfall payment, being in a closer relational environment increased giving from two persons making a donation to four persons making a donation, directionally consistent with the expectations but not statistically significant, but under the influence of windfall payments, these differences were larger (instead of one person making a donation, there were seven). The interaction between the relational environment and endowment appears to be important and is taken up in Section 3.2.

It is instructive to examine also *how much* is given by givers. People were paid in coins such that they could give any sum in 10p intervals from 10p to their whole payment. In spite of this, all but one of the 14 givers gave between 100p and 500p, with the most common donation being 100p. (The outlier gave 10p). Although total giving levels were 820p higher in the close relational environment than the

distant, and 380p higher amongst those receiving a windfall payment compared to those who did not, these differences were due to the fact that people in the favoured groups were more likely to give, not that they gave bigger sums. This can be seen by considering the differences in average size of donation per head and per treatment group *only amongst those who gave*.

For givers in the close relational environment, having a windfall payment *increased* giving by 101p. For givers in the distant relational environment, having a windfall payment *decreased* giving by 200p. Neither of these differences were statistically significant (Mann-Whitney test p-values 0.203 and 0.157 respectively), but it is interesting to note how the relational environment reverses the giving response. Both in terms of the likelihood of making a donation and also in terms of sums given, in a close relational environment the introduction of money differentials stimulates people to give more, whilst in a distant relational environment the introduction of money differentials stimulates people to give less.

But overall givers in the distant relational environment gave much more than givers in the close relational environment. They gave an average of 433p as opposed to 192p, a 241p difference. So although those in a close relational environment were more likely to give, the additional givers gave significantly less than those who gave irrespective of the relational environment (Mann-Whitney test p-value 0.031). Moreover, in the more distant relational environment, two of the three givers, one male and one female, gave their *whole payment.* No one in the close relational environment behaved in this way. This implies some internal motivation to give was present that was not related to treatment, or that was even *compensating* for *bad* treatment. (Alternatively it could be a gesture of disgust or protest; even sabotage, although this seems unlikely as the mood of both these givers was generally more positive than the group average).

So we see two statistically significant influences on giving at work. Firstly the relational environment motivated more people to give, and especially in combination with the receipt of payments higher than others, although these givers did not necessarily give the biggest sums. Secondly, it would seem that a few people are motivated to give by motivations not related to how they are treated or perhaps even to compensate for how they are treated. These few, motivated to give in the face of distant treatment, gave the biggest sums.

As a further strand of evidence that the relational environment affects giving: people were asked, 'Would you want to meet your partner again following this experiment?' Participants could choose between five responses as shown in Table 5.4. Although these results are not statistically significant, the reported desirability of a continued relationship appears to interact in the expected direction with an average willingness to donate to a third party and also to the average amount donated.

Response category	Desire to meet again	number of persons responding	proportion of group making donations	average sum given if donated
1	not at all; not especially; or neutral	0 1 3 } 4	0.25	100p
2	might be nice	21	0.33	216p
3	definitely	15	0.40	300p

Table 5.4 The effect of relationships on giving

The relational parameters also correlated in the expected direction with the desire people had to meet one another again. Following a close relational experience the average willingness to meet out of the 3 options was 2.35. Following the distant relational environment the average willingness to meet again was 2.2. Although these differences were not statistically significant, they are directionally consistent with the way the relational parameters chosen in this experiment were expected to impact feelings towards one another. Moreover we see that giving levels reflected the impact of the relational distancing much more sensitively than subjective questioning along the lines of, 'would you want to meet again.' Despite the small number of observations, giving behaviours still tracked differences in relational proximity with statistical significance.

Besides its effect on giving, another major outcome of the relational and endowment treatments is the mood of the participants. It may be argued that mood or monetary influences on wellbeing are the main drivers of prosocial behaviours like giving, in which case prosocial behaviour is just a side-product of a better-off society and requires no special attention to social/relational parameters. This experiment seeks to separate out these influences, to check that it really is a *relational* factor that motivates action towards the wellbeing of others (giving).

5.3.2 The interaction of giving with mood

Mood was measured after the relational and monetary treatments but before payment and the decision on giving. Mood was measured using the positive and negative affect schedule (PANAS), devised by Watson *et al.* (1988). As shown in Appendix 5A, the PANAS questionnaire consists of 20 words that describe different feelings and emotions. To each word, the respondent numbers from 1-5 the extent to which they feel that way right now in the present moment. For analytical purposes the scores of all the positive words are added up for a 'positive affect', and the scores of all the negative words are added for, 'negative affect.' Scores can range from 10-50, with higher scores indicating higher levels of positive or negative affect. In this experiment, the mean score of momentary positive affect is 27 and the mean score of negative affect is 14; similar to the average levels of positive and negative affect found in much wider studies and therefore adding credibility to the validity of these results (see Crawford and Henry (2004). Crawford and Henry also affirm that PANAS has a history of use as a research tool in group studies. Negative affect reliably indicates the activation of subjective distress

and an unpleasurable engagement with the environment. Positive effect usefully indicates a pleasurable engagement with the environment. Histograms of positive and negative affect by treatment group can be found in the Appendix 5C.

The overall mood differentials between participants had no statistically significant impact on giving. Of particular interest to us however is whether the various treatments made mood more positive or more negative. For this we consider the average mood differences between treatment groups. Assuming that there are no significant biases in the make-up of the groups (see Section 3.3), any differences in these averages are likely to be driven by the differences in treatments. Figs.5.8, 5.9, 5.10 and 5.11 detail how the relational environment and windfall endowments influence positive and negative affect.

Fig.5.8 Positive affect by relational environment and windfall endowment

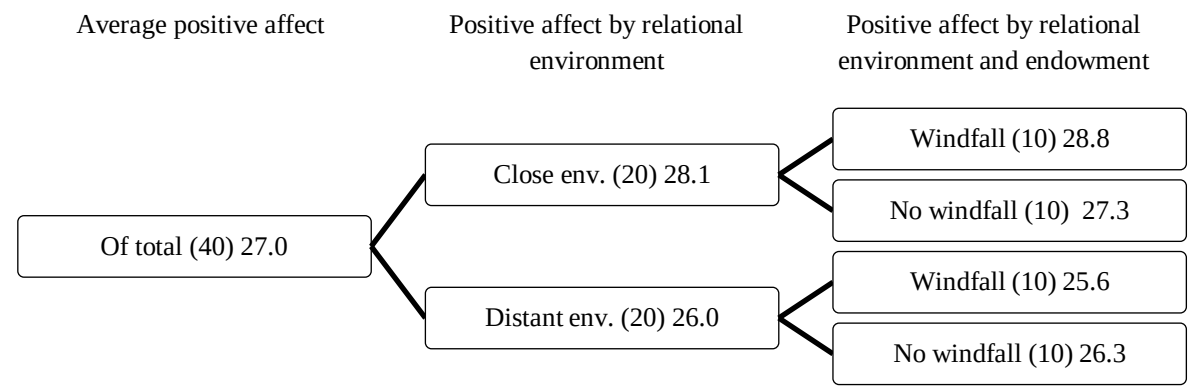


Fig.5.9 Positive affect by windfall endowment and relational environment

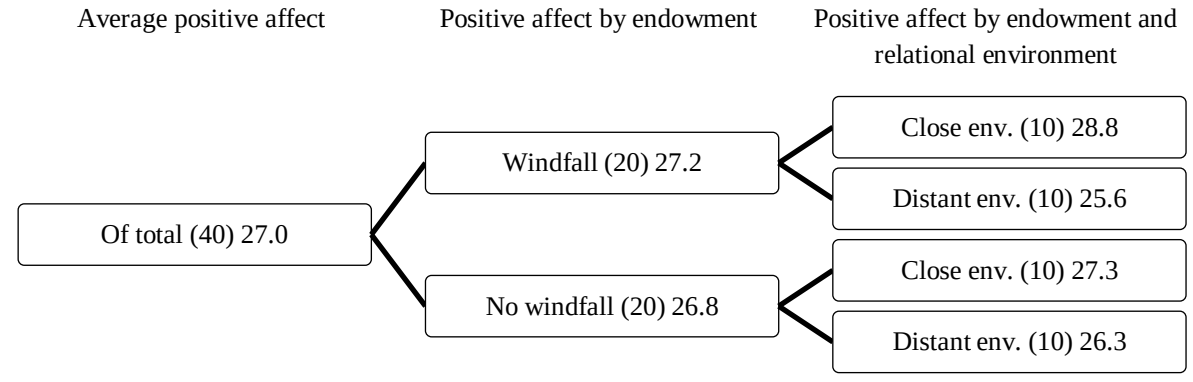


Fig.5.10 Negative affect by relational environment and windfall endowment

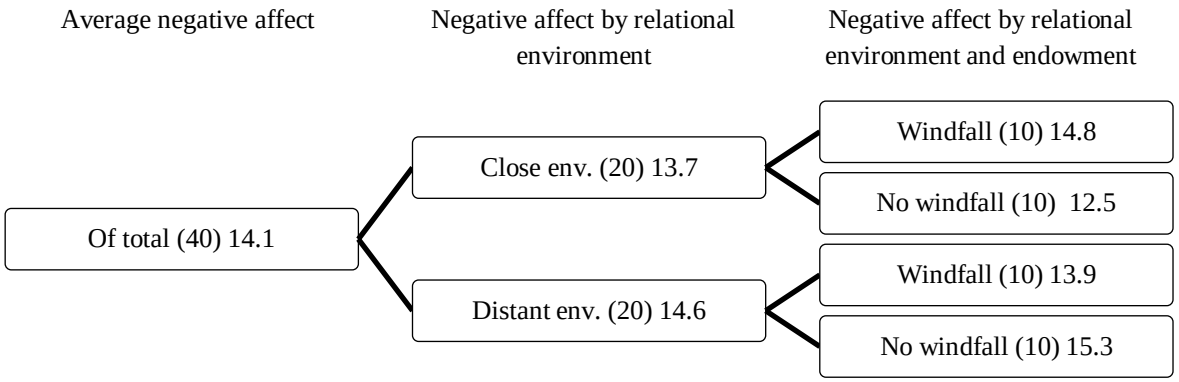
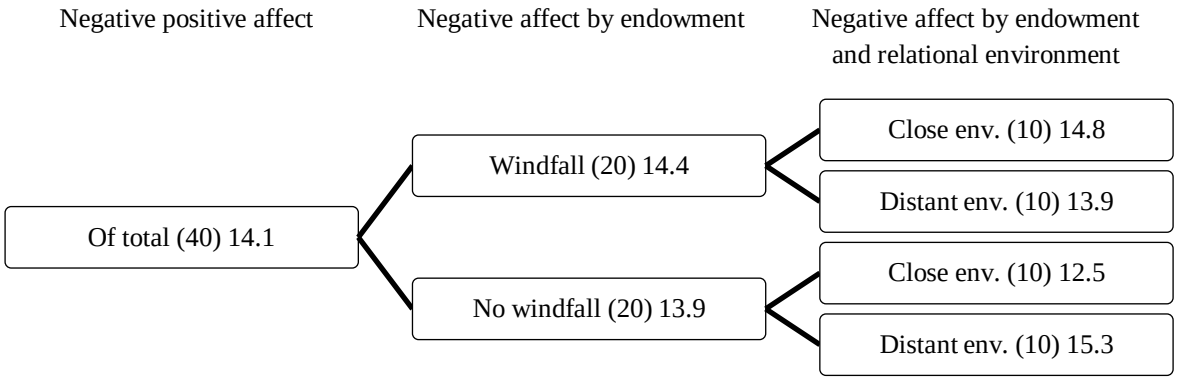


Fig.5.11 Negative affect by windfall endowment and relational environment



There are few statistically significant drivers in this mood data. However I do find that in an environment uncomplicated by differences in endowment (no windfall payment) the closer relational environment saw negative affect reduce by almost 3 points. This just scrapes significance (Mann-Whitney test p-value 0.099), but at least it indicates that relational proximity in the absence of monetary complications makes people feel better. None of the other interactions in figs.5.8 to 5.11 are statistically significant, although the general trends are compatible with the hypothesis that a close relational environment has a positive impact on mood. In contrast, the effects of a windfall endowment on mood are clearly smaller and are not consistently positive.

Adding unequal endowments into a close relational environment certainly introduced mixed emotions. Positive affect increased by 1.5; people liked getting the windfall, but negative emotions *also* increased by 2.3; unequal endowments disturbed people. This was unexpected, and is very different from the mood response to a windfall in the distant relational environment. Here people were not happier because of the extra income, but at least they were a bit less sad; negative affect *reduced* by 1.4. This indicates that uncomfortable emotions raised by the monetary differences only applied to people in close relationships.

Of statistical significance is that for those in a close relational environment receiving windfall endowments, the worse they felt, the bigger the sum they gave to charity. This assertion is based on an OLS model with 'sum given' as the dependent variable and 'positive minus negative affect score' as the singe independent variable. On average, for every point worse the participants felt, they gave 14p more on average to charity (standard deviation 4.3p, p-value 0.014).[5] This influence did not apply except in the context of a close relational environment; people who felt bad in a distant relational environment were rather inclined to give less, not more. Thus I found that in the close relational environment, people experiencing higher levels of negative affect were more likely to make a donation (Mann-Whitney test p-value 0.081), whilst in the distant relational environment, positive minus negative affect showed that it was the more *cheerful* people who made a donation (Mann-Whitney test, p-value 0.063). It would seem that a closer relational environment made people more inequality averse (conform Fehr and Schmidt 1999). It sensitized people to imbalance in the relationship; imbalances which were particularly felt in the presence of endowment differentials, and that giving behaviours were a response to these concerns. People in the distant relational environment were unaffected by such concerns however, and their giving was rather responsive to feel-good factors. This is only an interpretation, but it is difficult to think of an alternative explanation for the data.

The interpretation also fits with other trends in the data, even where those trends are not statistically significant. For example we could see that people in the close relational environment also became less comfortable about seeing their partner again once they had a windfall endowment. There are three categories of response to the want-to-see-partner question as shown in Table 5.4, with higher responses corresponding to an increased desire to meet again. In the distant relational environment, the mean response to these questions is 2.2, and it is exactly the same whether people have a windfall income or not. In the close relational environment and uninfluenced by the existence of any windfall pay-outs the mean response to these questions is 2.5; they are more likely to want to see their partners again. Having a windfall that they know others do not have however brings that average desire-to-see-one's-partner-again right back down to 2.2; the same level expressed by those in the more distant relational environment. Although not statistically significant, and therefore of limited value, this does indicate that the disturbance has some relational motivation. This also fits with evidence from authors like Wilkinson and Pickett (2009) who claim that income distribution has relational consequences. But notably it is this group; those in the closer relational environment with a windfall endowment, that made the most donations to charity (7 out of 10 gave, compared to 4 in 10; 2 in 10; or 1 in 10). It

[5] Note that this data was even more extreme when based only on the *negative* affect experienced by participants of the group. On average, for every point worse the participants felt, they gave 21p more on average to charity (standard deviation 5.8p, p-value 0.007). However with a group size of only 10 participants there is a danger that the results are influenced by one extreme case, and a visual representation would suggest that this may be an issue. The model based on positive minus negative affect appears to be more robust (see visual representation, appendix 5C Fig.5C5).

would appear that people have become motivated by the closer relational environment to act with more consideration for one another (they become inequality averse), such that although they like getting more money, the windfall raises concerns over unequal endowments, and prompt them to redress these concerns through giving.

If this experiment was to be run again, it might be interesting to have a third group in which *everyone* gets a windfall income, and to see if people feel the same urge to give money away. However, this experiment better reflects reality in that incomes do not tend to rise evenly for all, and whether or not people wish to compensate for this by redistribution is under the influence of *relational* components.

The effect of increasing relational proximity by tweaking Schluter and Lee's relational parameters can be seen not only in giving, mood and a desire to see one partner again; there were also some anecdotal effects on student behaviour. As people exited the classrooms, those from the close relational environment immediately got into clusters to talk over their experiences, look at the sheet explaining what it was all about, and engage with the invigilators in conversation. Those from the distant relational environment on the other hand walked straight out and away, avoiding eye contact and discussion. Such small changes in relational parameters were alarmingly efficient. The impact of the relational environment on giving behaviours was so large that even with a relatively a small sample size, statistically significant differences could be observed.

5.3.3 Control for confounding effects

Endowment and relational environment are not the only factors affecting giving, so bias in these results may be tested for by checking that the composition of the groups is not weighted in favour of any other major factor of influence. An analysis of gender, race, subject interest, job/volunteer involvement, financial struggles, religious involvement and age showed that the group compositions were not unduly biased; there was a good mix of these demographics found across the groups. This makes the findings with respect to the relational treatments more credible. A possible exception was the finding that there were more psychology students in the distant relational environment and economics students in the close, but looking at how people donated in the close relational environment I found that if anything students from psychology were *more* likely to donate than others, so the experiment was not biased such that giving was more likely to take place in the close relational environment because of the demographic distribution. Overall, it would seem that the precautions mentioned in Section 5.2 to avoid bias in the composition of the treatment groups were effective; the controls would indicate that there is a random selection of person types spread across the groups (Table 5.5).

		Close relational environment	Distant relational environment
Gender: male (female)		7 (13)	8 (12)
Ethnicity: white-Brit (other)		15 (5)	13 (7)
Subject studied:	economics	9	5
	psychology	4	8
	geography	4	3
	other	3	4
Job/volunteer involvement: yes (no)		14 (6)	12 (8)
Finance: just get by/difficult (do alright/comfortable)		6 (14)	6 (14)
Attend religious services at least monthly: yes (no)		4 (16)	3 (17)
Birth year: academic year 1995/6 (older)		15 (5)	14 (4)

Table 5.5 Distribution of persons between groups

In terms of the influence of these demographics in themselves, although certain demographics may be associated in the literature with leaning to more or less giving, in these small samples there were no statistically significant differences expect with respect to gender, and even here there was no bias in the distribution of these types of people across the treatment groups. The gender differences are described in Appendix 5B since they are interesting but not part of the primary research question. This appendix also contains a note on the interaction between test scores, mood and giving. Here the observations reinforce how giving is affected more by relational treatments than by other influences on wellbeing, although again, the tie between performance and affect are outside the scope of this paper.

5.3.4 Summary of results

Table 5.6 summarises the major findings:

Dependent variable	Independent variable	Test	P-value	N° obs	Interpretation
Made a donation (0,1)	relational environment (0,1)	chi-squared	0.008	40	A close relational environment significantly increased the likelihood of making a donation.
Made a donation (0,1)	windfall endowment (0,1)	chi-squared	0.507	40	The windfall endowment did *not* significantly increase the likelihood of making a donation
Negative mood *if* no windfall pay	relational environment (0,1)	Mann-Whitney	0.099	20	A close relational environment independent of endowment complications lifts mood
Sum given if in windfall pay in close relational environment	Mood (positive minus negative affect)	OLS coef.: -13.45 s.e.: (4.280)	0.014	10	The worse people feel under inequality, the bigger the sum they donate, but this *only* applies in a close relational environment.
Made a donation (0,1) if in distant relational environment	Mood (positive minus negative affect)	Mann-Whitney	0.063	20	In a distant relational environment people were more likely to give when they felt good, but this was reversed in a close relational environment. Possibly the close relational environment sensitized people to relational *concerns* which they then addressed in giving.
Made a donation (0,1) if in close relational environment	Mood (negative affect)	Mann-Whitney	0.081	20	
Sum given *if* gave at all	relational environment (0,1)	Mann-Whitney	0.031	14	Those motivated to give *in spite of* the distant relational environment gave a larger sum per head

Table 5.6 Summary of statistically significant findings

It can be seen that changes to relational proximity significantly impacted the decision to give to charity. Monetary stimuli affecting welfare independently of a positive relational environment had no positive impact at all on giving behaviours. The importance of the relational factor in impacting giving behaviours concurs with evidence from Hornstein *et al*. (1975) and Holloway *et al*. (1977). These authors found in lab experiments that subjects hearing about other people being helpful or causing offence affected their generosity towards total strangers. Reports on helping behaviour promoted generosity, whilst reports on a murder decreased generosity. The latter authors extended this to show that reports on non-social elements did not have this effect however. They tried the same thing with varying reports on weather 'blessings' or damage, but the non-social element had no impact on giving. Having said this, we find that a combination of a close relational environment and a windfall

endowment motivated the most giving of all, with 7 out of 10 persons making a donation to charity. Relational factors *combine with* monetary factors to stimulate giving.

A study of the interaction between treatment and mood helped to unpick these differing impacts of relational and monetary factors on giving. A close relational environment independent of endowment differentials significantly improved mood. Results were directionally consistent with the hypothesis that people like to get money too, although this was not statistically significant. Introducing the complication of bonus endowments produced surprisingly mixed emotions however. The more disturbed a bonus winner felt in a close relational environment, the more they gave. There was no evidence of this redistributive behaviour in the face of negative emotions in the distant relational environment; only in a close relational environment. I presume therefore that people had become motivated by the close relational environment to think more about other people, and so they were especially sensitized to the threat posed to relationships by unequal endowments. They became inequality averse, and they responded to the imbalance by giving.

Finally it can be seen that the treatments in this experiment could not fully explain every individual's decision to give or not to give. We find that the giving of people who were motivated to give independently of how they were treated was significantly greater than the giving of those who were encouraged to give by the *way* they were treated. Supported by evidence from the preceding chapter, this suggests that giving behaviours depend partly on the relational environment (how the individual is being treated) and partly on prosocial attitudes appertaining to the individual that do not rely on the external environment. Prosocial attitudes and the social environment interact to determine prosocial behaviours like giving.

5.4 Conclusions

This experiment set out to discover if changes to relational parameters drove other-centred giving patterns. There were three related issues I wished to address, to which this experiment gave the following answers: Firstly, I wanted to see how the relational environment and individual prosocial preferences interact, and it was found that the relational variables strongly influence an individual's decision to give. Secondly, I wanted to see whether giving is a useful indicator of the cohesive qualities of the wider social environment, and found that giving is indeed a sensitive barometer of civic sector pro-sociality that is responsive to social conditions. And thirdly, I wanted to confirm that it really was the *relational* component that motivated giving, and not just a mood-altering improvement to welfare that could be achieved in other ways. Here it was found that a welcome monetary windfall was impotent to stimulate giving by itself; it was relational proximity upon which giving behaviours pivoted, and the desire to maintain that proximity.

Giving is a prosocial behaviour form in that it involves one party in a positive interaction with another party. Since giving in this experiment was to a third party, we have evidence that changes in the social

environment affect prosocial preferences generally. In other words, how people are treated affected how they went on to treat others. This bears out the results of DeScioli and Krishna (2013) and also of Attanasi *et al*. (2013), showing that a prosocial attitude is not *just* a static, pre-existent, integral emotion, it can also be modified by momentary conditions. This experiment adds that the prosocial attitudes are responsive to relational proximity, not just to cooperative *versus* non-cooperative relational environments, and certainly not just a by-product of being better-off.

Although an interaction between individuals and their social environment may be noted, this was not a repeated experiment, so the continuity of the feedback loops are not proven. However we do have a social treatment, a social response, and an indicator of a wish for further social engagement. Moreover the donations to charity that emerge as a prosocial response do not go out of the social network; they must change the social parameters experienced by the third party who receives the money, so now *their* social parameters have changed. How the treatment that third party receives goes on to affect *their* activities is beyond the scope of the experiment. What I can affirm however is that the treatment that each group and its invigilators were giving to each other systematically impacted the individual's decision to consider the interests of a third party, bringing them to give their own money to others. This may be represented as a positive interaction between an individual and their social environment having further positive knock-on consequences to the welfare of society as a whole.

The results support my model of Section 3.4 which portrays the drivers of prosocial inclination as inter-personal factors that bring individuals to take other people into consideration in their resource allocation decisions. The interaction between individual prosocial inclinations and their wider social environment (response and counter-response) dictates whether the overall cohesion of these relationships is increasing or decreasing. Prosocial inclination can be modified by changing certain structural parameters of that interaction. Furthermore the prosocial qualities of this modification can be quantified by changes in giving flows. There are a couple of far-reaching implications to this research.

Firstly, if relational parameters impact the prosocial inclinations of individuals (and the pro-cohesive way they subsequently allocate their resources to the benefit of others), the implication is that these parameters should be considered by decision-makers and development agents in their social interventions. Schluter and Lee's mix of directness, parity, commonality, multiplexity and continuity are all malleable and may be useful points of departure.

Secondly we know that relationships between people with their highly complex structural and cognitive elements are difficult to observe, let alone measure, and yet the giving behaviours that flow from the mix are easier to trace. Giving behaviours provide a useful proxy for the prosocial nature of civic sector relations in that giving is ultra-sensitive to differences in the social environment; far more sensitive than subjective responses to questions along the lines of, 'do you want to meet again.'

Regarding the limitations of this study, a larger sample size would have been preferable; more like 40 students per group. As it was, only the simplest of statistical analysis could be carried out, and even then, with so few observations, it is possible that a single outlier has the power to influence the statistical significance (or not) of the outcomes. For this reason visual representations of the data (histograms, graphed correlations) were made, to check for the existence of outliers. A larger sample size would be more convincing should the experiment be replicated however, as well as allowing us to explore leads on how relational drivers and inequalities interact with mood. In addition, although considerable care was taken in the experimental design to avoid introducing non-relational influences on giving, some may wish to double check this by testing each relational parameter separately. The more differences one introduces into an experiment at once, the more danger there is of introducing confounding effects (unintentional factors causing behaviour differences between the treatment groups). One should not lose sight of the multi-faceted nature of relationships however, and the fact that its various aspects may be less meaningful in isolation.

Lab experiments are useful for asserting causality between two variables (in this case, relations that bring people together and prosocial (giving) responses), but their results may not translate directly into the real world where the social environment is much more complex and the participants more varied. However, this experiment concurs with the findings of my other chapters which are based wider surveys, whilst making a case regarding causality, which can be contentious to argue from survey data alone. The principal goal was to test whether changes in relational parameters are measurable in giving, and this goal was achieved. The giving response was so extreme that even with relatively few observations, it was still statistically significant.

In the next chapter I want to test the model further by considering how prosocial inclinations, reflected in giving behaviours, are connected to social cohesion and its associated quality of life. If giving behaviours indeed constitute a civic sector contribution to social cohesion, then we should find evidence of ‘giving’ being associated with an improving quality of life.

Appendix 5A: Details of Experiment

This appendix contains (1) the consent form used for participants in this study; (2) details of the experimental procedures; and (3) unformatted copies of each paper in order of appearance.

Informed Consent Form for Study Participants

Please read the following information carefully

DESCRIPTION: You are invited to participate in a research study supported by the University of Reading. Its purpose is to investigate human behaviour in specific contexts. You will be asked to share some non-intrusive and non-sensitive information about yourself with another person, and then to engage in a straightforward task. You will also be required to answer two short, private questionnaires regarding a minimal of demographic information and some subjective opinion.

BENEFITS: You will gain first-hand insight into experimental social research methods. At the end of the exercise, you will be offered a more detailed account of the different elements of the study and (eventually) the results. You will also receive at least £5 cash for your participation on completion of the study.

REQUIREMENTS: Your participation in this experiment will take approx. 40 minutes. No mobile devices may be used for the duration of the study. You must arrive on time on XXX, at XXX. You must be a new student beginning your first term at the University of Reading. The first XXX persons of the required demographics to register will be chosen. You should retain your own copy of this consent form and information. If submitting this form electronically, you will have your own electronic copy. If you just turn up on the day, additional hard copies of this information will be available.

SUBJECT'S RIGHTS: If you have read this form and have decided to participate in this project, please understand your participation is voluntary and you have the right to withdraw your consent or discontinue participation at any time without penalty. You have the right to refuse to answer particular questions. Your individual privacy will be maintained in all published and written data resulting from the study. This project has been given a favourable ethical opinion for conduct by University of Reading authorities. Further questions may be addressed to XXX.

If you agree with the above-stated conditions and are willing to participate in the experiment, please fill in the details at the bottom of this form. By submitting this form you agree that you meet the following conditions:

- This is your first term at the University of Reading.
- You have read the above information, have understood what will be required of you, have had any questions answered to your satisfaction, and agree to the arrangements described in so far as they relate to your participation.
- You have your own copy of this consent form and information.
- You agree to arrive on time at XXX**.**

FOR YOU TO FILL IN
I meet all the above conditions. Name:
Signature **(not required for electronic submissions)**
Date:
Male or female (We want an equal mix of gender):

Places on this study will be allocated on a first come, first serve basis. You can either just turn up on the day or, to secure a place in advance, send this form electronically to XXX before XXX.

Two similar classrooms in the same building were chosen for the experiment, with the seating and tables prearranged in pairs and numbered, more tables being prepared in both rooms than students to fill them. Numbers ascended along the front row, with highest numbers at the back. Every other pair of tables was pre-destined to receive double pay, with papers appropriate to that cause ready prepared for those tables. However, no knowledge of pay differentials was available to the students as they chose their seats. The papers up to paper 5 for use in the experiment were already on the tables in both rooms, but face down with *'Do not turn over these papers or open any envelopes until told to do* so' printed on the top. Paper 5 was also enveloped, because it contained information on the windfall payment for some and should in no way be seen before time.

On presentation in the foyer outside the classrooms, student consent forms were checked or filled in. The students were then divided into alternate rooms, men in order of arrival, and women in order of arrival. There were two invigilators in each classroom as students entered, one to speak, and the other a timekeeper. The timekeeper was to ensure that the lengths of the exercises were exactly the same in both groups, making the groups comparable.

In one room the close relational environment was created, and in the other, the distant relational environment. 20 students were sent to each room, and of those, every other pair (10 students in each group) received a windfall of double pay. The parallel progression of events in each room with the relational differences between them is shown in the Appendix Table 5Ai, with details of the contents of each paper to follow. Appendix Table 5Ai differs from Table 5.2 in the main text only in that it provides the exact wording the invigilators were expected to offer.

Stage of experiment and time allowed	**Close relational environment**	**Distant relational environment**
Arrival	The 2 invigilators were friendly, approachable and casually dressed. As students arrived, they were encouraged to fill up from the front and according to the directions displayed on the screen. The PowerPoint slide read: *University of Reading Research Study. Please put away and silence mobile devices. Please sit in twos: either male-female or female-female, no men together. Sit next to someone you do not already know.*	The 2 invigilators were formal; distanced in demeanour and in smart dress. No smiles. As students arrived, the invigilators completely ignored them, speaking only to each-other or being engrossed in paperwork. The students therefore seated themselves randomly. Displayed on the screen was the following PowerPoint slide: *University of Reading Research Study. Please put away and silence mobile devices. Please maintain complete silence throughout this exercise.*
When no more students arrived, the signal to start the programme was given by a third	Silence not kept. To keep time with the other group, invigilators gave a general welcome message and introduced the experiment along the lines of information already	Silence kept. Invigilators finally looked up and the speaker addressed the group with, "This research study is about to begin. You need to maintain complete silence

invigilator	received in the consent form. Correct seating was checked and enforced.	throughout this exercise. You need to sit in twos, filling up from the front. Sit next to someone you do not already know, and no two men should sit together. Keep the silence and move as quickly as possible NOW." Students were made to quickly reseat in a way corresponding to the other group.
Paper 1: General information. 45 seconds	Invigilator said, "Now turn over paper 1 and look through the contents".	Invigilator said, "Now turn over paper 1 and familiarize yourself with the contents".
	Paper 1 outlines requirements and introduced the desk number as a unique identity number. During this time a PowerPoint slide showing the consent form was projected.	
Paper 2: Demographics questionnaire. 1 minute	Invigilators in each group said, "Now turn over paper 2 and fill in the form". Paper 2 comprised a confidential questionnaire of semi-sensitive demographics.	
	At the end of the time, invigilators went round taking in paper 2	At the end of the time, invigilators told students to fold their paper (for confidentiality) and pass it to the front.
Paper 3: Information sharing. 3 minutes for filling in information individually, and 5 minutes for swapping that information with student partner.	Invigilator said, "Now turn over paper 3. Fill in the first section on your own, then discuss the contents with your partner and work out section 2 together." After 3 minutes, they were told they should be turning to section 2 if they have not already done so, and that they will have another few minutes to complete the exercise.	Invigilator said, "Now turn over paper 3 and follow the instructions." After 3 minutes, they were told they should be swapping papers with their partners if they have not already done so and be filling in section 2 on the others person's form, and that they will have another few minutes to complete the exercise.
	Paper 3 comprised 12 non-intrusive questions about the student. In the close group the information was discussed verbally. In the distant group, all exchanges were written. The content differed as shown in the paper.	
	At the end of the time, invigilators went round taking in paper 3	At the end of the time, invigilators told students to pass their papers to the front.
Paper 4: Non-verbal reasoning test 10 minutes	Invigilator said, "Now turn over paper 4. This is a non-verbal reasoning task of the type used in 11 plus exams. There are a series of diagrams in boxes and you have to identify the pattern and work out which option fits the missing box. Try to solve the puzzles together with your partner. After 10 minutes, for your own interest, you will be given the answers and asked to mark your own. You will not have to share your results with other students in this room."	Invigilator said, "Now open envelope 4 and follow the written instructions" (The same non-verbal reasoning test was carried out *alone*).
Checking the answers 3 minutes[6]	Invigilator said, "Time's up! We'll put up the answers now, and everyone can mark their own." PowerPoint displayed with the answers. People allowed to talk it through with their partner. At the end of	Invigilator said, "Time's up! We'll put up the answers now, and everyone can mark their own." PowerPoint displayed with the answers. Individuals marked their own answers. At the end of 3 minutes,

[6] This turned out to be too long. 1 or 2 minutes would have been plenty.

	3 minutes, invigilators went round taking in the marked question papers.	invigilators told everyone to pass the marked question papers to the front.
The differences in relational environment ended here. From here on, the group environment and student tasks were identical except that paper 5 was still taken in in the close relational environment and passed to the front in the distant. Invigilators were formal but polite. Students worked alone. Complete silence was maintained in both groups.		
Envelope with paper 5: Mood survey and question on desire to meet your partner again, together with windfall pay announcement for some. 3 minutes	Invigilators say, "Now the remaining papers are for your eyes only. Please do not share this information with your partner, and can we have [or: continue to maintain] complete silence for the rest of the session. You can now open envelope 5 and follow the instructions." The students opened the envelopes on their desks containing this questionnaire. Every other set of tables in each room had a paper stapled to the front of the questionnaire announcing that they were in 'lucky seats' selected for double pay (£10 instead of £5). Those without this windfall however did not know that others had more than them.	
	Paper 5 taken in/returned to the envelope and passed to the front.	
Envelope 6 containing money, receipt and a charity slip. 2 minutes for completion from the time the envelopes were handed out	A PowerPoint instruction was projected onto the screen and invigilators read it exactly. *'Thanks for your participation. We are going to hand out the money now. The University of Reading requires that everyone signs a receipt and you will also have an opportunity to make a donation to charity should you wish. So please could you keep the silence whilst the money comes round, open your envelope, and fill in the very last slips.'* In both groups, all invigilators went round handing out the pre-prepared and numbered envelopes to the right tables.	
Invigilators said, "We want to take in your signed receipts for the money now. We have to do this separately in order to retain your anonymity. So just give us the receipts as we come round, and the donation slips with any money you wish to leave for charity should be left in the envelopes on your desk." New PowerPoint slide displayed reading, '*Signed receipts to be collected in now. Take your money! Leave the envelope on the desk with the donation slip inside and any money you wish to donate to charity.'* All invigilators went round collecting receipts, checking they were signed as they went. Invigilators then said, "All done? That's it, thank-you! Take your money, leave the envelopes on the desk, and as you leave, you can collect the wider details of this study from the invigilator at the door. Someone will be available outside to explain more about the experiment if you are interested." One invigilator of each group then stood at the door handing out an information sheet whilst the others kept an eye on the envelopes on the desk.		

Appendix Table 5Ai: Progression of experiment by relational environment

PAPER 1: General information

Research Study:

Participants are requested to answer all questions truthfully and to the best of their knowledge, and to comply with the instructions of the invigilators.

Please record your desk number here …..

You will need to write this number where requested on each subsequent paper. Retain this number in case you wish to withdraw from participation, so that we know which observation to exclude.

Please do not use any mobile devices whilst in this room.

[Distant relational environment only: Complete silence must be maintained throughout this exercise.]

A copy of the consent form is displayed in the PowerPoint. If you have not already submitted one of these, let the invigilators know and you will be brought a form to sign.

PAPER 2: Demographics questionnaire

Please fill in the following form (you will not be required to share this information with others in the room):

Desk number …..

Month and year of birth: Month: ….. Year: …..

Male or female …..

Citizenship: …...

Ethnic background (select one option)

- ☐ Asian
- ☐ Black
- ☐ Mixed
- ☐ White
- ☐ Other

How well do you expect to manage with the financial pressures of university life?

(select one option)

I expect to:

- ☐ Live Comfortably
- ☐ Do alright
- ☐ Just about get by
- ☐ Find it quite difficult
- ☐ Find it very difficult

How often, if at all, do you attend religious services?

(Select one option)

- ☐ Once a week or more
- ☐ Less often but at least once a month
- ☐ Less often but at least once a year
- ☐ Never or practically never
- ☐ Only on special occasions like weddings, funerals etc.

PAPER 3a: Information for sharing – questionnaire for close relational environment

Record your desk number here …..

We want you to share some information about yourself with the person sitting next to you. First fill in the information in part 1, and then discuss the contents with the person sitting next to you. Work out part 2 together.

Part 1
Please give brief answers to the following questions

1. What subject are you studying at University? …..
2. Have you held a formal job before? …..
3. Have you any voluntary work experience? eg. Have you ever helped to run a group, club or organisation? …..
4. If applicable, how often were you involved in paid or voluntary work
   (Select one of the following)
   - Once a month or more
   - less than once a month but more than once a year;
   - once a year or less;
   - N/A
5. What subjects did you like at GCSE level? …..
6. What subjects did you dislike at GCSE level? …..
7. Do you live on or off campus? …..
8. Is your home near or far from Reading? …..
9. Do you have brothers and sisters or not? …..
10. Name two things you enjoy …..
11. How has someone in the past helped or encouraged you? …..
12. One goal for the future …..

Now share this information with your partner. Swap papers or tell each other how you have answered the questions. Fill in part 2 together.

Part 2:

1. Based on the answers in part 1, identify with your partner something you both have in common, and write it down here: …..
2. Briefly discuss something you agree could be done in support of this common interest.

PAPER 3b: Information for sharing – questionnaire for distant relational environment

Record your desk number here …..

We want you to share some information about yourself with the person sitting next to you. First fill in the information in part 1. When you have finished part 1, swap papers with the person next to you. Fill in part 2 on your partners' paper. Do not break the silence.

Part 1
Please give brief answers to the following questions

1. What subject are you studying at University? …..
2. What is the length of your course? …..
3. Have you held a formal job before? …..
4. Have you any voluntary work experience? eg. Have you ever helped to run a group, club or organisation? …..
5. If applicable, how often were you involved in paid or voluntary work
   (Select one of the following)
   - Once a month or more
   - less than once a month but more than once a year;
   - once a year or less;
   - N/A
6. What subjects did you like at GCSE level? …..
7. What subjects did you dislike at GCSE level? …..
8. Name a subject you did at A-level (or equivalent) …..
9. Name something that you like in a teacher? …..
10. Name something that you dislike in a teacher? …..
11. Do you already have a career in mind? …..
12. How long ago did you decide to come to Reading University? …..

Now exchange papers with the person sitting next to you.
Read the other person's paper and identify three ways in which you differ from them. Write down the three differences in part 2 of their paper and hand the paper back. Do not break the silence.

Part 2: (fill this section in on your partners' form)
Based on the information above, write down three ways in which you differ from this person:…..
Now return this paper to its original owner, get your own paper back, and read what was written.

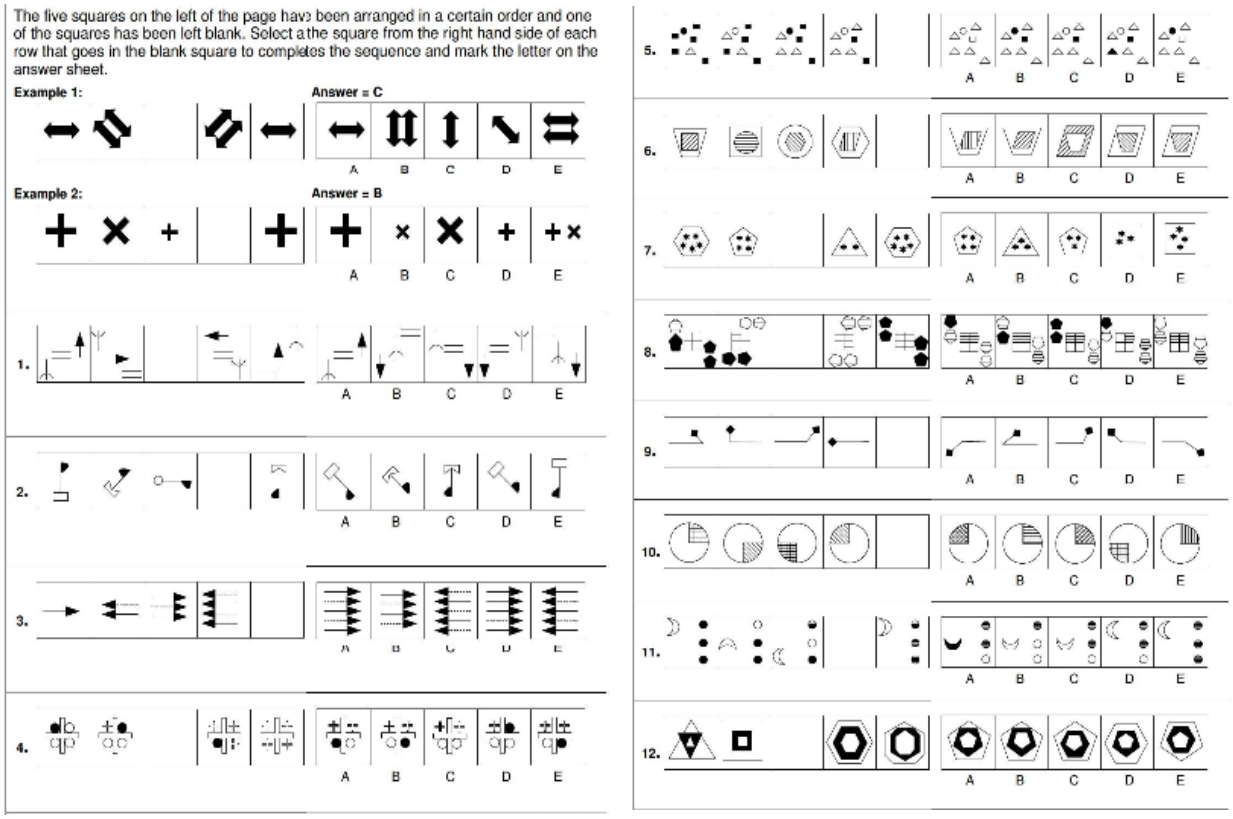
PAPER 4: Non-verbal reasoning task

Record your desk number here: …...

This is a non-verbal reasoning task of the type used in 11 plus exams. There are a series of diagrams in boxes and you have to identify the pattern. You circle the option you think best fits the missing box from a choice of answers. Further explanation and example answers are provided so that you know what to do.

Try to solve the puzzles together with your partner. [Distant group: Try to solve the puzzles on your own]. You have 10 minutes to complete this exercise. After 10 minutes, for your own interest, you will be given the answers and asked to mark your work. You and your partner [or: You] will not be required to share your results with other students in this room.

Thanks to 'ElevenPlusExams' for provision of the non-verbal reasoning questions, used with permission.



PAPER 5: Meeting again and mood questionnaire

Please fill in the confidential questionnaire below.

1. Desk number …..
2. Would you want to meet your partner again following this experiment?
   Tick the box that best describes your response:
   - ☐ Definitely
   - ☐ Might be nice
   - ☐ Neutral
   - ☐ Not especially
   - ☐ Not at all
3. The words below describe different feelings and emotions. Read each item, and then list a number from the scale below next to each word. Indicate to what extent you feel this way right now, that is, at the present moment.

1 Very Slightly or Not at All	2 A Little	3 Moderately	4 Quite a Bit	5 Extremely
_____ 1. Interested			_____ 11. Irritable	
_____ 2.Distressed			_____ 12. Alert	
_____ 3. Excited			_____ 13. Ashamed	
_____ 4. Upset			_____ 14. Inspired	
_____ 5. Strong			_____ 15. Nervous	
_____ 6. Guilty			_____ 16. Determined	
_____ 7. Scared			_____ 17. Attentive	
_____ 8. Hostile			_____ 18. Jittery	
_____ 9. Enthusiastic			_____ 19. Active	
_____ 10. Proud			_____ 20. Afraid	

Thank-you for your participation - now the payment! Please maintain the silence however until the payments are completed. (Group 2 only) Return this form to the envelope before passing to the front.

[Scoring instructions (which were not included on the questionnaire paper): For Positive Affect, add the scores on items 1, 3, 5, 9, 10, 12, 14, 16, 17 and 19. For Negative Affect, add the scores on items 2, 4, 6, 7, 8, 11, 13, 15, 18 and 20]

Tacked to the front of the questionnaire of every other table pair was the following notice:

Congratulations! You picked one of the lucky seats! It was decided that whoever sits at this table should get double pay! So now you will get £10 for your participation instead of £5

PAPER 6: Receipt and charity slip

Receipt:
I, the undersigned, received £5 [or £10] for participation in a University of Reading research study
Signed:
Name:
Date:
In order to retain your anonymity, this slip must be separated and handed in separately.

Charity Option:
I would/would not* be willing to make a donation to charity (*delete as appropriate)
I donate _____ to the following charity/charities
(tick the box(es) of your choice):

- ☐ Amnesty International
- ☐ Cancer research
- ☐ Green Peace
- ☐ NSPCC (the National Society for the Prevention of Cruelty to Children)
- ☐ Oxfam
- ☐ Red Cross
- ☐ RNLI (Royal National Lifeboat Institution)
- ☐ RSPCA (Royal Society for the Prevention of Cruelty to Animals)
- ☐ Salvation Army

Please return this slip to the envelope together with any donation applicable and leave it on the desk. Take the remaining money with you! All donations will be forwarded to the selected charity (charities).

Appendix 5B: A note on gender and the influence of test scores

15 males took part in the experiment, and 25 females. This meant that there were 15 male-female pairs and 5 female-female pairs. The proportion of persons choosing to donate by gender and in response to treatment is shown in Appendix Table 5Bi.

Treatment	**Proportion of males and females choosing to donate**	
	Males	Females
Close environment	0.29	0.69
Distant environment	0.25	0.08
With windfall	0.38	0.42
Without windfall	0.14	0.39
Total	**0.27**	**0.40**

Appendix Table 5Bi Likelihood of making a donation by gender, relational environment and windfall pay

Appendix Table Bi shows that a more positive relational environment stimulated an increase in the proportion of women giving from 0.08 to 0.69, whilst the impact of male giving was far less. Moreover a positive relational environment stimulated 0.69 of the females to donate and only 0.29 of the males. Thus it can be seen that women's behaviour was more sensitive to the relational environment than men's and so women were more likely to give than men in a positive relational environment. Both these (and only these) relationships are statistically significant.

Although gender affects giving behaviours, the experiment is not biased because there was a fairly even split of males and females across the treatment groups, as shown in Appendix Table Bii.

	Close environment, windfall	Close environment, no windfall	Distant environment, windfall	Distant environment, no windfall
male	4	3	4	4
female	6	7	6	6

Appendix Table Bii Gender split amongst the 4 treatment groups

Furthermore it is interesting to note that whilst test scores influenced mood, this non-social influence on wellbeing did not influence giving. Not surprisingly, people did significantly better in the non-verbal reasoning test when they collaborated in the close relational environment than when they worked on their own in the neutral environment. The average score in the collaborative group was 10.1 out of 12, instead of 8.3 out of 12 where people worked on their own. Even though people did not know one another's scores, a higher than average test score was associated with lower levels of negative affect; a 2 point difference which was statistically significant. However, these test score differences and the improved mood they generated had no impact on the giving decision. Givers in the distant relational environment had above average test scores of 10 out of 12, but givers in the close

relational environment had below average test scores of 9.3 out of 12. I can conclude that improvements in wellbeing generated by higher scores were not the driving factor in the decision to give; only the social/relational differentials impacted the giving decision.

Appendix 5C: Positive and negative affect by treatment group

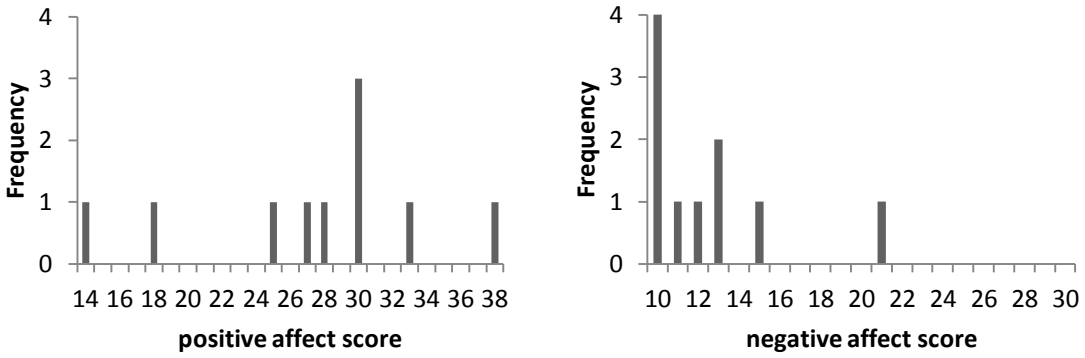


Fig.5C.1 Mood in close relational environment with no windfall

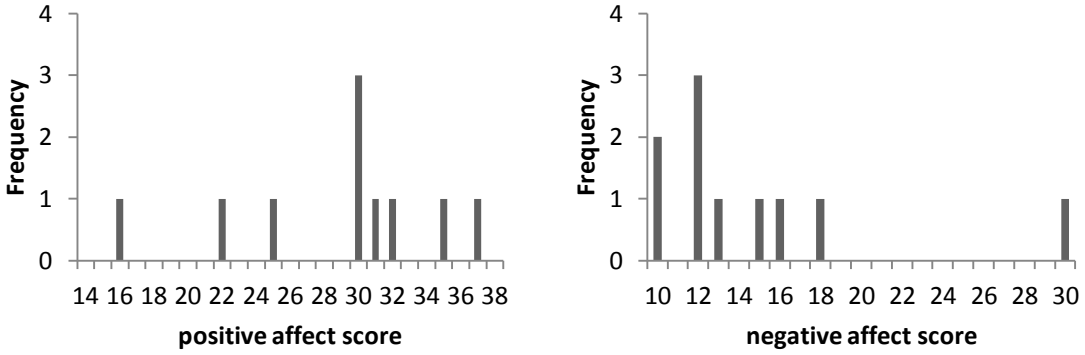


Fig.5C.2 Mood in close relational environment with windfall endowment

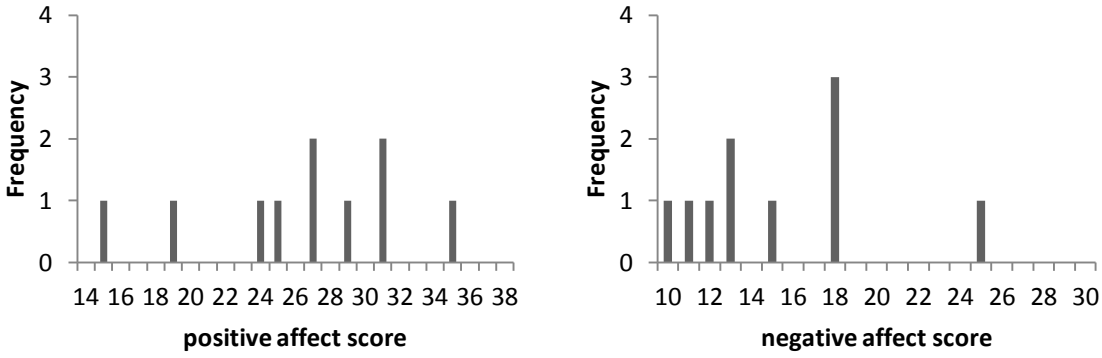


Fig.5C.3 Mood in distant relational environment with no windfall

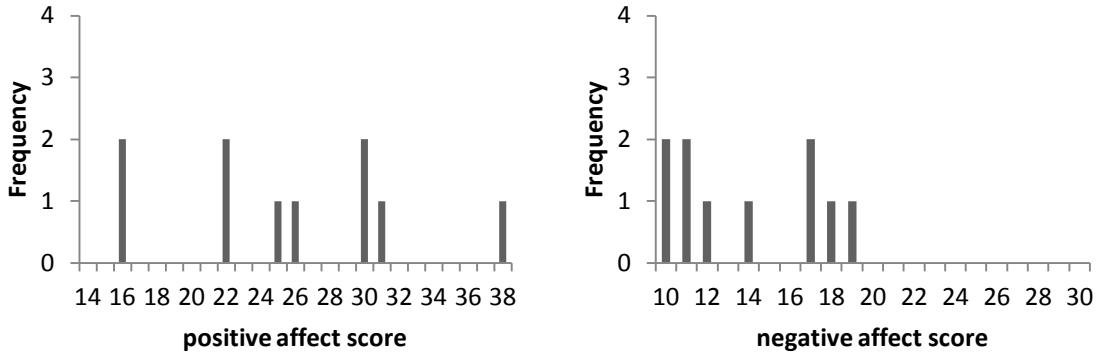


Fig.5C.4 Mood in distant relational environment with windfall endowment

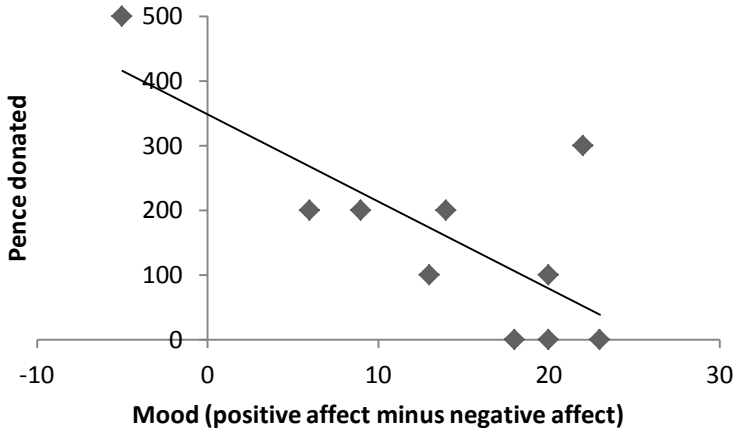


Fig.5C.5 Interaction between mood and sum donated, within a close relational environment and with a windfall endowment

Chapter 6. **Social motivators, giving flows, welfare outcomes using Citizenship survey data**

6.1 Introduction

It has been established in the previous chapter that the social environment affects the prosocial manner in which one individual relates to another. And as we saw in Chapters 1 and 2, these relationships, reflected in giving behaviours, have an important bearing on welfare. Chapters 6, 6a and 7 therefore go on to examine the association between 'giving' and various indicators of an improved quality of life or 'welfare.' First, using two different data bases (Chapter 6 and Chapter 6a) I identify *which* giving measures are best related to welfare, and how to aggregate different giving behaviours to produce a single measure of pro-sociality. After this, Chapter 7 examines whether giving is associated with improvements in the social environment over time. This concludes my analysis of the interaction between prosocial motivation and the health of the wider social environment, rounding off the picture of how the social environment may improve or else degenerate as people interact over time.

Citizenship Survey data of England and Wales is used to provide empirical evidence for the link between giving behaviours and welfare. As was mentioned in Chapter 4, the citizenship survey is a nationally representative (stratified) survey of England and Wales, with a data pool of 38,283 observations taken over the four consecutive years until 2011. Fieldwork was carried out face-to-face by the National Centre for Social Research (NatCen). Respondents were aged 16 years and over and lived in private households.

A person's private welfare is indicated by levels of income (means to an end) and life-satisfaction. However their welfare also depends on how other people in their community are behaving. Measures of personal welfare that are particularly dependent on the behaviour of others include levels of trust, crime and deprivation. These measures also have subjective and objective components; life-satisfaction and trust being subjective indicators whilst income, crime and deprivation are objective measures of welfare. Crime and deprivation statistics for the ward each respondent lived in were taken from government records and had been imputed to each individual's data-set. A 'ward' is the smallest electoral unit in the UK, and in England and Wales the average population per ward in 2011 was 6,600 persons (Office for National Statistics 2013). The 'index of multiple deprivation' includes income deprivation, employment, crime rates, health problems, education levels, barriers to housing, and living environment, all derived from the way that the people in each ward use government services. Appendix Tables 6Ai - v describe in more detail the relevant variables drawn from the survey.

Section 6.2.1 describes how giving behaviours that suggest increasing levels of pro-sociality towards others also show correlation to improvements in welfare. Section 6.2.2 considers how the various types of giving most indicative of pro-sociality may be amalgamated, and then quantifies the links

between multi-dimensional giving and welfare. Section 6.2.3 demonstrates how a giving index may be constructed in order to compare one geographical area to another in terms of its prosocial status. It shows how well this index, acting as a proxy for communal pro-sociality, is able to predict welfare. Finally, Section 6.2.4 begins to consider how the welfare of a region changes *over time* in the presence or absence of giving.

6.2 Empirical evidence for the link between pro-sociality, giving and welfare

6.2.1 Evidence that giving reflective of consideration for others is key to welfare

40% of the population surveyed helped out (volunteered) in a group activity in the last 12 months, almost 60% helped non-family members out informally, and 74% gave to charity in the last four week. We see from this that people often choose to give their time and/or money away to the interests of another person or into a group endeavour. We have seen that the motivations behind such behaviours may be altruistic or expedient, and interact with/are dependent on the wider social environment that the individual is part of. Here in Sections 2.2.1 to 2.2.5 I present five separate studies which show that giving which is expressive of positive relationships and prosocial inclination has a predictable correlation with welfare outcomes; giving and welfare run together. The results are presented graphically, but the figures corresponding to the graphs and all regressions with statistical significance are available in Appendix 6B.

6.2.1.1 More giving, better outcomes

Firstly, higher generalized levels of giving (more money donations, more time commitment) to persons other than oneself are associated with better welfare outcomes. In addition, people exhibiting greater commitment in their relationships (e.g. helping in a group rather than just attending it; marriage rather than just cohabiting) are also associated with better welfare outcomes. These points are demonstrated in figs 6.2 to 6.6.

Fig.6.2 shows that those who invest time to join in a group with other people experience higher levels of welfare than those who do not. Those who use their time even more intensively and help run the group (volunteer) exhibit an even greater jump in welfare. All the differences are statistically significant at a 99% confidence interval.

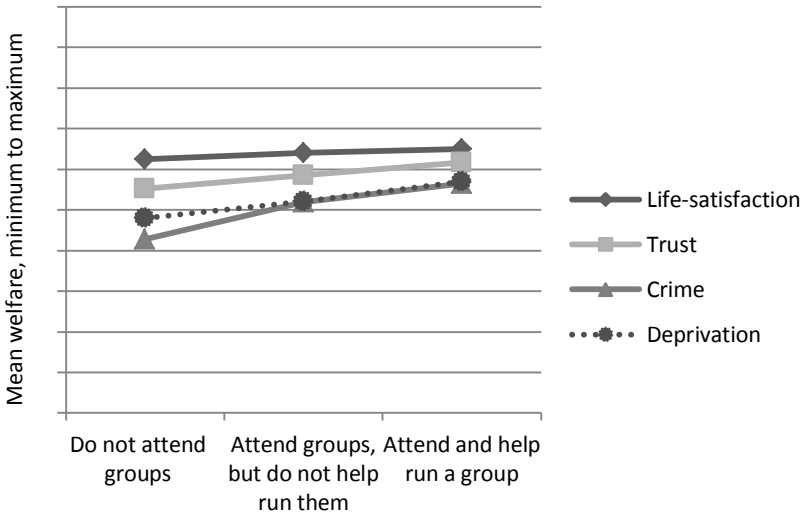
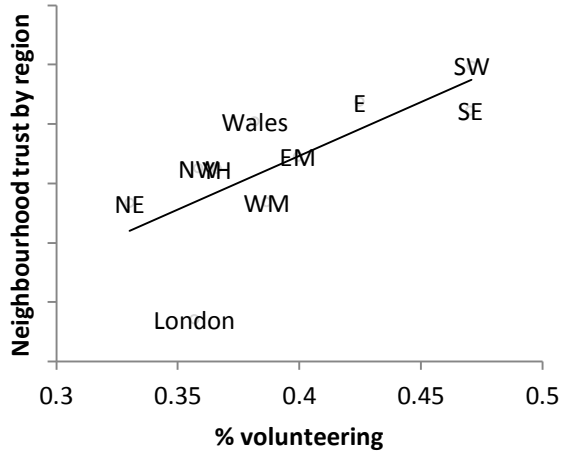
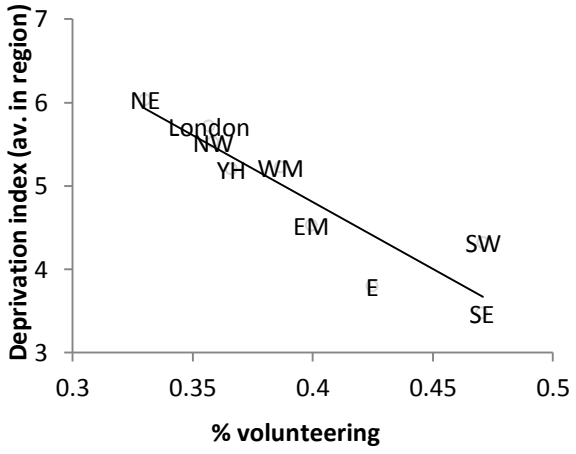


Fig.6.2 Group involvement and welfare

We can look into volunteering further. In this data-set, 'volunteering' means helping to run a group or activity (Ipsos MORI & TNS-BMRB 2011). The Citizenship data reveals that, by government office region, the proportion of the population who volunteered at some point in the last 12 months is strongly and significantly correlated to that region's communal welfare (Fig.6.3).



Correlation: 0.72



Correlation: -0.91

Fig.6.3 The correlations between volunteering and community welfare

Key: NE: North East; NW: North West; YH: Yorkshire and the Humber; EM: East Midlands; WM: West Midlands; E: East of England; London; SE: South East; SW: South West; Wales

However, once volunteering, whether those volunteers put in more or less hours did not have a significant association with communal welfare (Table 6.1).

Dependent variable	Independent variable[i]	Model	coeff.	std. error	p-value
Average trust by region	Proportion of persons volunteering in each region	OLS of the 10 regions: more people volunteering is associated with greater trust	1.8055	0.6158	0.019
Average deprivation by region	Proportion of persons volunteering in each region	OLS of the 9 regions[ii]: more people volunteering is associated with less deprivation	-16.033	2.7097	0.000
Average trust by region	Hours volunteered over zero in each region	OLS of the 10 regions: extra hours volunteered is not associated with greater trust	0.1093	0.0661	0.137
Average deprivation by region	Hours volunteered over zero in each region	OLS of the 9 regions[ii]: extra hours volunteered is not associated with less deprivation	-1.1392	0.7260	0.161

[i]One single independent variable
[ii]Deprivation data excludes Wales, since the deprivation index is constructed differently in this region

Table 6.1: The relationship between regional volunteering and regional welfare

Broad participation in prosocial activities has a significant association with communal welfare, but not hours volunteered. This may be because multiple hours of volunteering are taking the *place* of a job: for example Citizenship data reveals that amongst those who volunteered at all, the proportion of persons volunteering weekly (as opposed to less often) was considerably higher amongst unemployed persons and persons with long term health difficulties than it was amongst persons in paid jobs. Yet unemployment and ill-health are clearly not indicators of a thriving society.

This background may help to explain the data in Fig.6.4. Fig.6.4 shows that whilst increasing volunteer involvement from none to yearly and from yearly to monthly is associated with ever higher levels of welfare, a further increase in volunteering from monthly to weekly is not associated with higher welfare levels. Volunteering is good for society, but its positive effects appear to be mitigated at the high frequency end, possibly by the association with joblessness, ill health, or lack of broad engagement (many people giving a little may be of more value than a few people giving a lot).

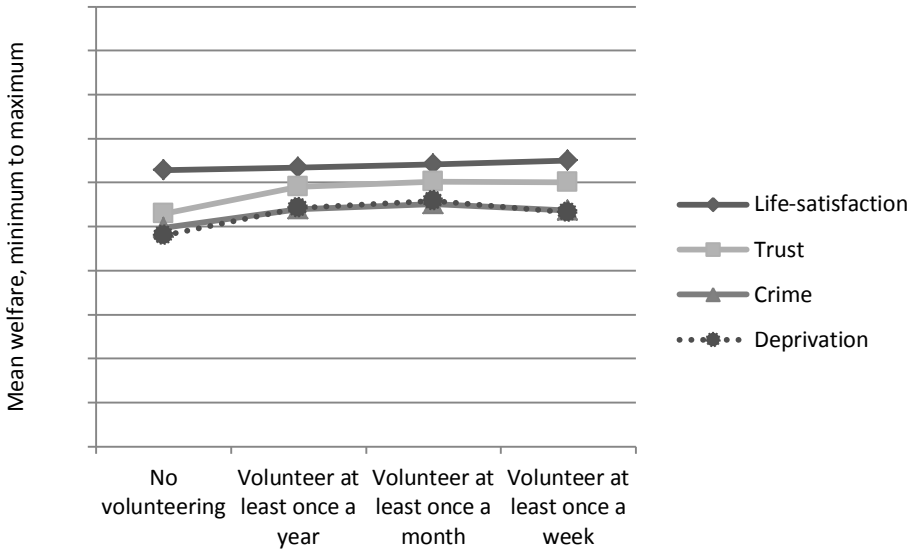


Fig.6.4 Increasing levels of volunteering and welfare

The giving of money is important too. Having given money to charity in the last four weeks is positively and significantly associated with every type of welfare outcome. A further regression reveals a statistically significant relationship between the amount given by givers and welfare too – increasing the size of the donation is associated with continually better welfare outcomes. Fig.6.5 shows the increases to welfare associated with giving as progressively more is given, stage by stage.

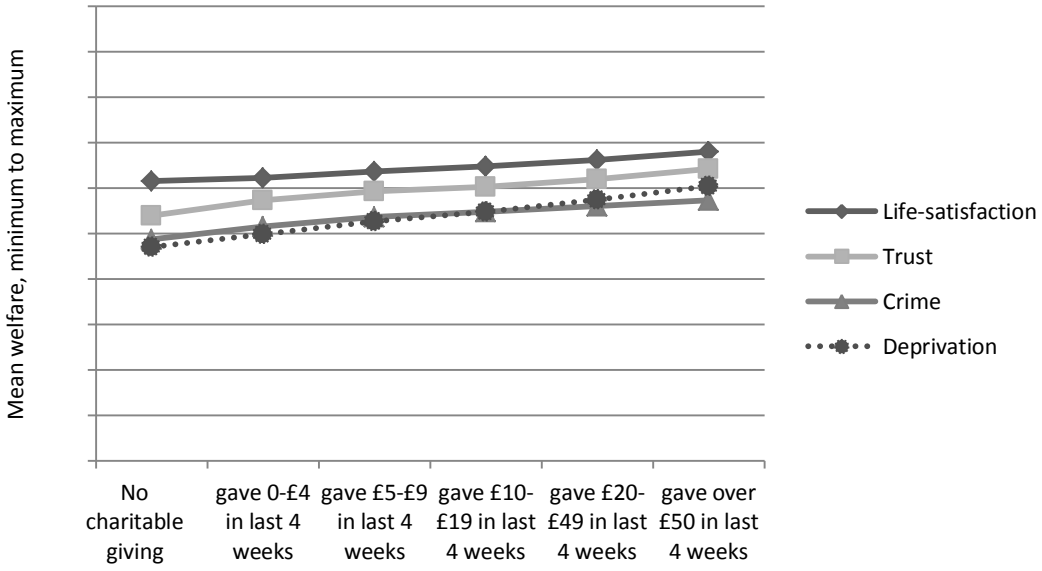


Fig.6.5 Increasing levels of charitable giving and welfare

How welfare is affected as people give an increasing *proportion* of their income may also be an interesting variable to consider, although this information cannot be accurately drawn from Citizenship data which only offers giving and income *categories*.

The numbers of people sharing shopping and cooking defines household size in this survey (Ipsos MORI and TNS-BMRB 2011). Sharing with others and living with a partner both involve time and money investments in another, albeit the partnership is likely to be a more reciprocal arrangement. Fig.6.6 shows the statistically significant correlation between welfare and sharing with others.

The horizontal line —— represents the mean welfare of those living in households (HH) of more than one person.

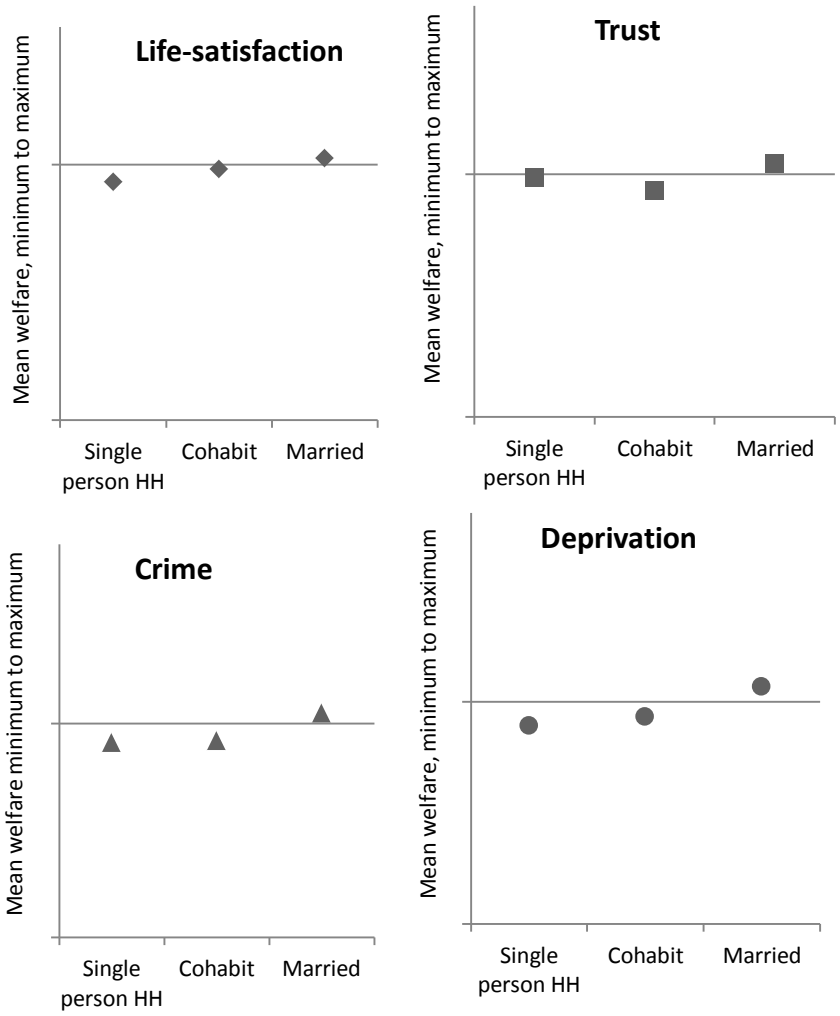


Fig.6.6 Living with others and welfare

In all cases, sharing with others in multi-person households is associated with greater levels of welfare than living alone (less so with trust, but even this difference is statistically significant at a 95% confidence interval). However, there is also an important welfare differential associated with the *type* of sharing relationship. Being in a marriage relationship is associated with significantly greater levels of welfare than cohabiting, perhaps reflecting higher levels of commitment/investment into the relationship, or else reflecting the age and circumstances of persons who cohabit rather than marry.

Overall, this section indicates that a greater or more intense use of time and money to the benefit of others is associated with significantly better welfare outcomes.

6.2.1.2 Internally motivated giving, better outcomes

In the citizenship survey, formal volunteering is defined as any form of unpaid help carried out in the running of a group, whilst informal help is unpaid help offered by an individual, not through a group, to someone who is not a relative (Ipsos MORI and TNS-BMRB 2011). Informal volunteering is more constrained by social forces and by external pressures and circumstances than formal volunteering.

It is profound then to discover that although giving informal help is associated with slightly higher welfare outcomes (higher trust, lower crime and lower deprivation being statistically significant) the interaction between *formal* volunteering and welfare is much greater (Fig.6.7). People who volunteer their time freely are associated with much higher welfare outcomes than those who only volunteer under the pressure of personal circumstance. This implies that consideration for others that runs deeper than external pressures alone has additional value to the welfare of the community.

In Fig.6.7 and 6.8 the horizontal line —— represents the mean welfare of the total sample, volunteers and non-volunteers.

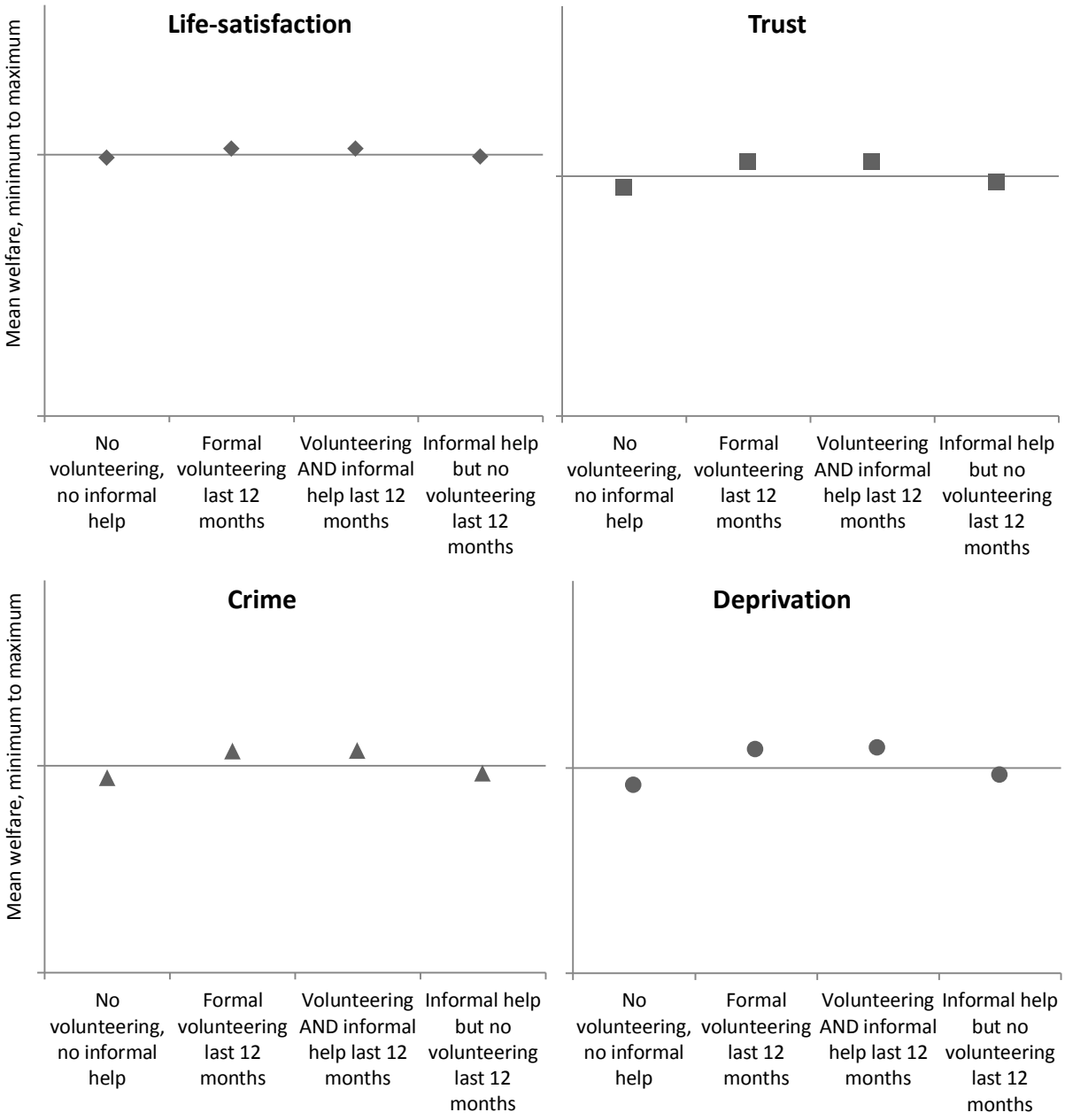


Fig.6.7 Average welfare depending on whether giving is formal or informal

It may be argued that the welfare disparity between helping informally and volunteering is nothing to do with consideration for others. It might instead reflect a lack of bridging social capital (a lack of connection to the formal economy and therefore a heavy reliance on informal connections). Alternatively, it might reflect a lack of organizational skill and the ability to institutionalize positive norms. Such arguments cannot explain differences in welfare outcomes surrounding civic engagement however. Civic behaviour might be undertaken with the welfare of the whole in mind, but it might also be undertaken in order to forward one's own private interests. Fig.6.8 shows that civic action in the absence of formal volunteering is associated with welfare outcomes that are significantly lower than is the case when civic action is combined with volunteering indicative of other-centred interests. The

underlying preferences – individualistic or considerate towards others, are more likely to explain this disparity than differences in connections and ability.

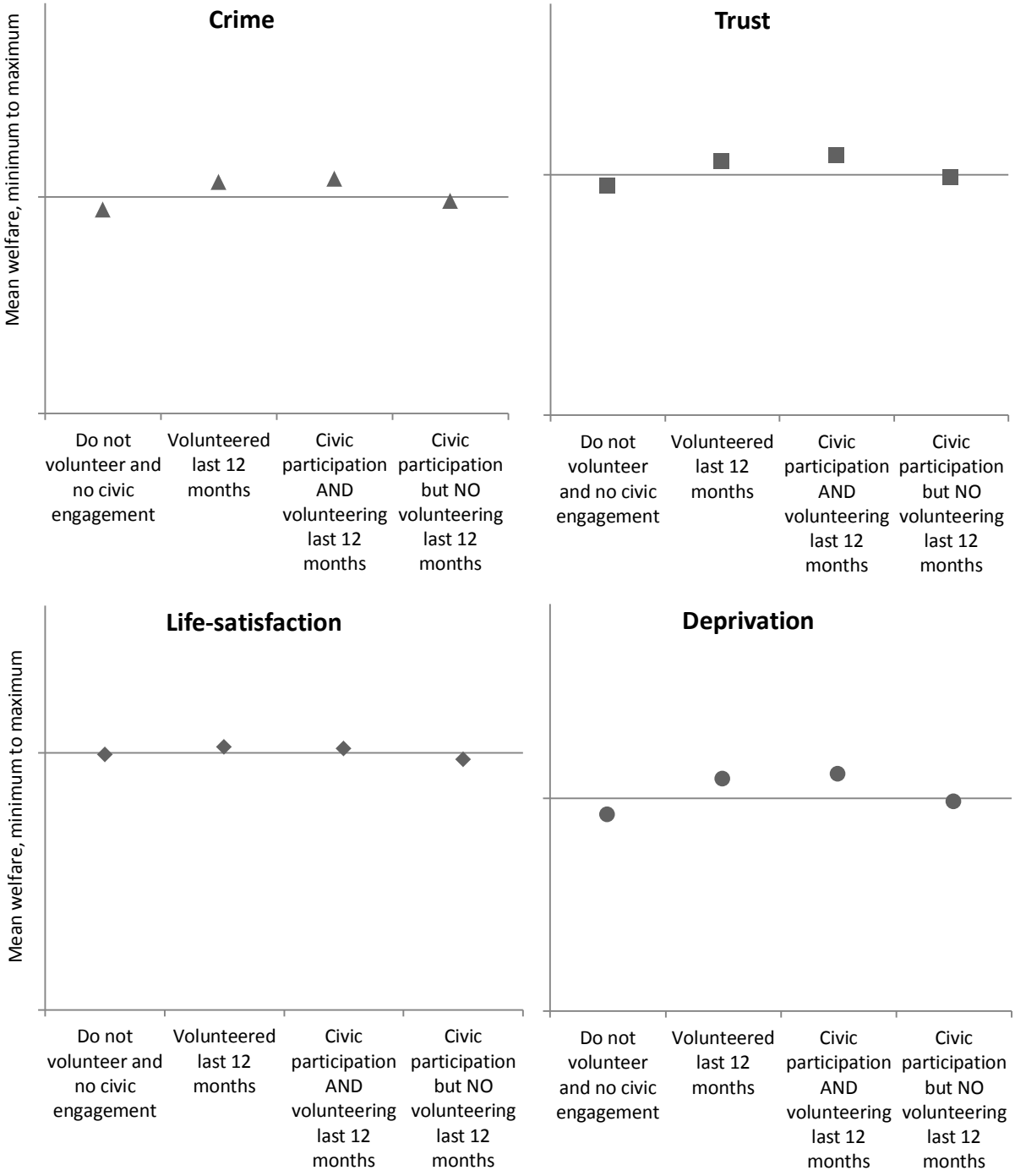


Fig.6.8 Welfare depending on whether civic action is combined with volunteering or not

Most people who volunteer formally also help others on an informal basis – their consideration for others is expressed in both arenas. However, when people help informally but not formally, it could mean they are only helping under the negative pressure of personal circumstance, and not from considerate, prosocial preferences. Additional support may be drawn for this conclusion from work by

Becchetti *et al.* (2013), who document a causal link from 'other-regarding motivations' to increased life-satisfaction. These authors find that people who are obliged to give *without* other-regarding attitudes being the motivating force to their behaviour do *not* experience these increases in life satisfaction. Also 'understanding relationships' research presented by the Cambridge pro-sociality and wellbeing lab immediately introduces the concepts of prosocial motivations, sacrifice, and appreciation of one another as essential predictors of life-satisfaction (cpwlab n.d.; see also Dew and Wilcox 2013 for US data). Kolm, in Gui and Sugden (2010) also suggests that a pursuit of tactical kindness misses the point. 'Beneficiaries' are highly perceptive as to whether the motives behind an act of kindness are genuine or not, and will reciprocate accordingly. To summarise: this section finds that whilst circumstances or self-interest may constrain people to give, positive welfare gains are greatest amongst those who give freely. Formal volunteering is generally a 'giving' choice that is made without the negative pressure of personal circumstance, and thus is especially dependent on the prosocial preferences that contribute to the welfare of their community.

6.2.1.3 Multi directional giving, better outcomes

Giving in multiple ways has a greater impact on welfare than single dimensional giving. Fig.6.9 shows that even though volunteering or giving to charity are separately and significantly associated with improved welfare outcomes, those who do *both together* are associated with an additional jump in welfare.

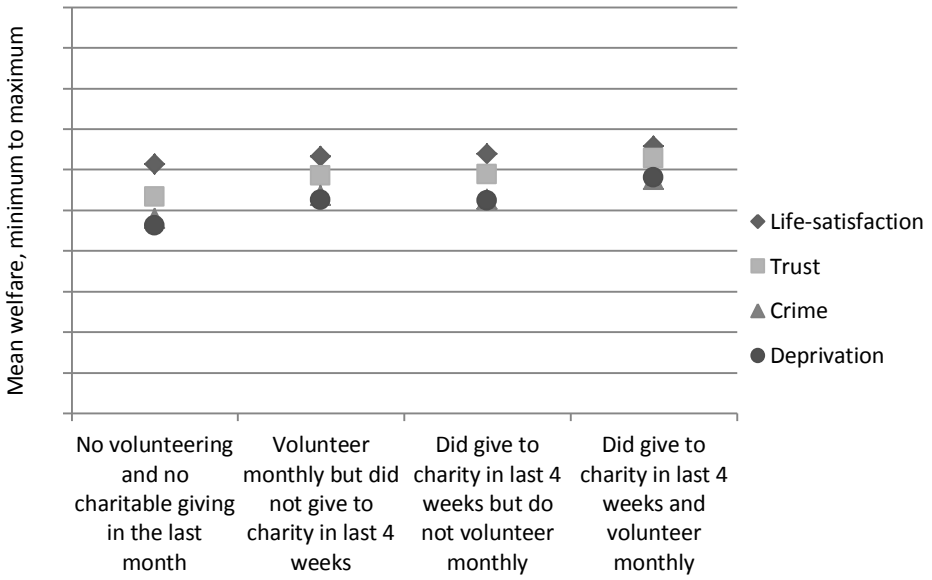


Fig.6.9 Multi-directional giving and welfare

Multi-dimensional giving again implies a giving *person* - someone whose underlying consideration for others is expressed in multiple aspects of their life. Such a person is associated with welfare to a greater degree than those who are not necessarily considerate, but who may feel constrained for some

reason to give into a particular area. The multi-dimensional aspect of the giving helps to identify the existence of more generalized relational motivations.

4.1.1.1 Broad interests, better outcomes

Table 6.2 shows the results of regressions that associate membership of different groups with the various aspects of welfare. Belonging to a group in the first column has a positive association with welfare, and belonging to a group in the second column has a negative association with welfare.

	Groups having a statistically significant positive association	**Groups having a statistically significant negative association**
Life-satisfaction	religion, sport, neighbourhood groups, citizens groups	social welfare, adult education
Trust	sport , environment, citizens groups, recreation clubs, neighbourhood groups, religion, politics, the elderly	adult education, safety and first aid, human rights
Crime	child education; sport; the elderly; environmental groups; citizens groups, neighbourhood groups; recreation clubs	human rights; unions; adult education
Deprivation	child education; sport; religion; environment; citizens groups; neighbourhood groups; recreation clubs	human rights; unions; safety and first aid
	Note: The regression for each welfare indicator included all the various groups available in the survey, but no other controls. Regression details available in Appendix Table 6B. All inclusions in the table are of statistical significance at a 95% confidence interval.	

Table 6.2 Interest groups and welfare

It is not surprising that groups of people in need of social welfare, adult education and the like are also groups with problems, which is not to say that the existence of such groups is not a force for good given difficult circumstances. Likewise involvement in justice and human rights groups or in trade unions is also negatively correlated with communal welfare. These groups are special interest groups with an agenda that often conflicts with someone else's agenda. Giacomo & Grimalda (2012) state that self-interested collaboration is *not* correlated to increased levels trust and solidarity, whilst collective interest groups are. In keeping with the theme of this section then, it would appear that social structures that accommodate the interests of others have particular value.

However there is no evidence from the Citizenship Survey to suggest that there are certain causes one might support that best express pro-sociality. Indeed sport, an inclusive pursuit but not an altruistic one, is associated with an improvement to all four welfare indicators (life-satisfaction, trust, crime and deprivation). This concurs with Putnam (2000) who states in his chapter on giving in relational to social capital (ch.7), that there is also no single predictor of giving, not even altruism. It is rather involved, engaged, connected people that give, and give indiscriminately. Likewise Knack and Keefer

find that all forms of organized activity may indicate a thriving, multifaceted society, and that the importance of one type of group compared to another may change when controls for other influences on welfare are added in. Freedom for dissent is actually characteristic of a resilient society, and so its expression in the tolerance of groups supporting a special interest agenda is not necessarily a negative sign overall. The whole mix of factors contributing to civic sector relationships with its consideration for others is of interest to us in relation to social cohesion.

6.2.1.4 Inclusive networks, better outcomes

Giving outside of one's own, socially pressured circle reveals where considerate behaviour has been generalized towards the wider community. Without this generalization of considerate behaviour, society fragments. This may be understood as better-endowed groups in terms of their power and wealth and/or physical endowment striving to consolidate those advantages and worse-off groups or individuals becoming increasingly marginalized. Trust, with all its attendant benefits, suffers rapid erosion under such conditions (Zischka 2013; Du Toit 2004; Wilkinson and Pickett 2009).

This fragmentation into 'good' and 'bad' areas persists over time, even when there is no negative intent. For example Orford *et al.* (2002) records how the distribution of neighbourhood poverty in London barely changed between the late 19th and 20th centuries. Recall also from Part 1 of this thesis the study of two neighbouring communities by Lindsey (2012): The better-off sector had four times as many charities, most of which were run by actively involved local volunteers, whereas in the worse-off sector the groups that *did* exist tended to be dependent on the input of persons external to the community. Those from the deprived sector desiring change had the ambition to move out to a 'better' area rather than invest in change where they were, but this only compounds the deprivation of the deprived sector, since their places tend to be taken by people of similar social status as the majority. I suggest therefore that it takes relational connections that are *not* based on self-interest for the movers and shakers to stay and invest where reciprocal response is hard to get.

People willing to invest in contacts from which they receive only limited returns are therefore a valuable asset to the less-endowed. The lesser-endowed may be defined as those who are dependent on the goodwill of those who have money, health and control. The better-endowed are those who, given the incumbent institutional system, can get along independently. The better endowed may therefore have little direct advantage from interaction with the lesser-endowed. However for the more vulnerable group, 'giving that crosses social boundaries' counteracts their exclusion and facilitates their access to richer collaborative networks and all their associated welfare benefits (El-Said and Harrigan 2009). In this sense, giving outside of one's own particular circle in terms of social grouping is a key indicator of positive civic sector relationships; it is indicative of generalised prosocial motivations.

Citizenship data allowed me to illustrate this empirically using the example of ethnic mixing. Ethnic mixing is defined in this data by informal conversations with people of a different ethnic or religious background and specifically within the context of one's own home, an eating and drinking place or a group/club (all venues in which people can exercise some degree of choice). Ethnic minorities are defined in this survey as non-white (Ipsos MORI and TNS-BMRB 2011). They are 'lesser endowed' in that they have lower levels of representation in a community, so they have to contend with social marginalisation. Table 6.3 shows that for whites, ethnic mixing was associated with negative welfare outcomes. However for the ethnic minorities, having links to other ethnic groups was associated with statistically significant *improvements* in terms of trust, crime and deprivation levels (communal indicators of welfare).

	Ethnic minorities: welfare effect and statistical significance of mixing	**Whites: welfare effect and statistical significance of mixing**
life satisfaction	none	none
trust	positive***	negative***
crime	positive**	negative***
deprivation	positive***	none

***p<0.01, **p<0.05, *p<0.10
(full regression details in Appendix 6B)

Table 6.3 Mixing and welfare

Table 6.4 further shows the effect of interaction *with definite positive intent.* It regresses trust, crime and deprivation against whether or not ethnic minorities had close *friends* who are white, and against white people who had ethnic minority friends. Again, ethnic minorities benefited from having white friends, but the whites did not.

	Ethnic minorities: welfare effect and statistical significance of having white friends	**Whites: welfare effect and statistical significance of having ethnic minority friends**
trust	positive***	negative*
crime	positive***	negative***
deprivation	positive***	negative**

***p<0.01, **p<0.05, *p<0.10
(full regression details in Appendix 6B)

Table 6.5 Mixed friendships and welfare

For the advantaged group to cross social boundaries therefore requires motivations other than short-term self-interest. Rules and sanctions alone do not help, since threat is hardly conducive to trust. Considerate attitudes induced by more intrinsic social values are necessary to cross social boundaries, reduce polarization between the deprived and the privileged, and build solidarity.

Full regression details are in Appendix 6B. I also provide figures showing that even if controls are added for income, age and education, the conversational/friendship aspect still retains its significance. Poverty indeed has a significant association with welfare, but as an additional factor I still find that ethnic minorities face better communal conditions when they have white conversationalists and friends, whilst white people with ethnic minority friends mostly face worse communal conditions. We may conclude that people prepared to build friendships across social boundaries may be providing benefits to the disadvantaged group without necessarily being motivated by private self-interest to do so.

Crossing ethnic boundaries is just one example the link between other-centred generosity and relating across social boundaries. A detailed local survey of Berkshire that I compiled in collaboration with BCF revealed that people giving outside of their own close circle correlated to generosity in many other ways also (see full results in Zischka *et al.* 2014 and a copy of the relevant statistics are in Appendix 6C). For example giving informal support to acquaintances outside the circle of family and close friends was positively correlated both to volunteering and to the size of charitable donations (note 13). Such persons were also more likely to talk to neighbours or invite others to their homes. The people who gave most money of all to charity were those who gave both locally *and* across geographical and cultural boundaries. Those whose formal giving, volunteering or friendships were directed broadly, irrespective or geographical, racial or religious boundaries tended to be (1) more generous in their donations and (2) more likely to give in multiple ways (giving money as well as time).

Moreover, deprivation levels amongst those who participated in groups serving both locally *and* beyond local interests could be compared to deprivation amongst those who participated *only* in local interest groups. I found that that broad giving networks and low deprivation went together. Bracknell, Windsor and Maidenhead, and Wokingham, the least deprived communities, also had the highest percentage of persons with involvement outside of their local community. West Berkshire, Reading and Slough, the most deprived communities in descending order, also had a descending order of persons whose interests extend beyond the local community (note 12). It would seem that giving outside of one's own, socially pressured circle shows up where prosocial behaviour has been generalized towards the wider community and this characteristic is the key to social cohesion. Without consideration for others, the better-endowed in terms of power and wealth strive to consolidate those advantages and the worse-off become increasingly marginalized, fragmenting society into polarized groups.

Considerate behaviour was also reflected in the modes by which people give. Those who gave the least tended to give through sponsoring some-one, buying raffle tickets, buying goods offered in a fundraising drive or putting change into a collection bucket. All these channels have some social

pressure or reward attached. The biggest givers however did all this *and* gave pro-actively, making payments to the charity without the direct contact or for a direct exchange (note 17).

So prosocial attitudes are expressed in generosity both within and outside of one's social circle, and we may expect that broad, indiscriminate giving behaviours offset polarity between groups, bringing people together into a more cohesive society.

6.2.1.5 To summarize the link between considerate attitudes and giving

We see that behaviours indicative of consideration for others are associated with improved welfare; the more considerate the giving behaviours, the better the welfare outcome. Thus the biggest welfare improvements were seen in connection with increased quantity of time and money inputs, increased intensity of involvement, increased commitment, increased numbers of people involved, increased dimensions of giving and giving outside of one's own circle of interest. It is not that one particular form of giving captures other-centeredness. Rather it is broad, multi-dimensional giving that best indicates the cohesive civic sector relationships behind it.

Next I quantify the relationship between giving and welfare. To do so the welfare of the top 10% 'givers' and the welfare of the bottom 10% 'non-givers' in the sample are compared to the welfare of the remaining 80%.

6.2.2 The link between giving and welfare

This section describes how I divided the Citizenship survey participants into the top and bottom 10% of givers, in order to test how being in these categories interacted with welfare. A 'giver' included people who attended formal groups, and who volunteered in the running of those groups in the last month *and* who gave at least £10 in the last four weeks to charity. For those with personal incomes of £35,000 an over, to qualify as a 'giver' the individual had to give at least £20 to charity in the last four weeks. (For someone with an expenditure of £10,000 a year, giving £10 represents 1.3% of their expenditure. Since those in the bottom expenditure decile who donate at all donate 3.6% of their total expenditure on average (CGAP 2013), then donating over £10 in the last four weeks is a probable event for any giver, not just those with higher incomes. Indeed, in this particular dataset the *average* giving amongst those who gave at all exceeded the £5-£9.99 giving bracket in every income category up to £35,000, and exceeded the £10-£19.99 giving bracket in every income category above £35,000). To qualify as a giver the individual also shared shopping and cooking with at least one other person. The volunteering and charitable donations are expressive of relational ties that cross social boundaries whilst sharing shopping and cooking gave some indication of significant time and money investments being made into another person based on close ties. Both kinds of relational connection are important to welfare: external ties open up opportunities whilst close, supportive ties empower people to make the most of those opportunities (Grootaert and Van Bastelaer 2002; Krishna 2002). Non-givers made

no charitable donations in the last month and did no formal volunteering in the last *year*; they did not even attend formal groups. If they were living with two or more other persons however, they were excluded from the 'non-giver' category. Thus two dummy variables were generated, contrasting the top 10% of givers and the bottom 10% of non-givers to the remaining 80% of the sample population (Table 6.6).

	Close relational ties	**Crossing social boundaries**	**Totals**
Giver	Share shopping and cooking with at least one other person	Attend a formal group, Volunteer (help run a group) at least once a month *and* gave £10 to charity in the last 4 weeks (£20 if their income exceeded £35,000/year).	3,507 givers (10.65% of the sample answering the relevant questions)
Non-giver	Excluded from 'non-giving' group if shared shopping or cooking with 2 or more persons	No charitable donations, no volunteering, no attendance of a formal group	3,434 non-givers (10.43% of the sample answering the relevant questions)

Table 6.6: Givers and non-givers

The results in Table 6.7 show that the magnitude of difference in welfare between the top and bottom decile in terms of giving is huge; comparable in scale and significance to big social issues like unemployment, education, low income, poor health, gender and ethnic groupings (also shown in the tables).

	Subjective measures of welfare		Objective measures of welfare		
Variables	life-satisfaction 1 (low) to 5	trust people in local area 1 (low trust) to 4	crime index 1 (least crime) to 10	index of multiple deprivation 1: least deprived to 10	household income categories 1 (low) to 14
giver	**0.0840*** **	**0.0980*** **	**-0.3471*** **	**-0.5849*** **	**0.3709*** **
(dummy: 1=giver)	[0.021]	[0.015]	[0.051]	[0.050]	[0.055]
non-giver	**-0.1156*** **	**-0.1947*** **	**0.3502*** **	**0.7235*** **	**-0.4041*** **
(dummy: 1=non-giver)	[0.020]	[0.014]	[0.047]	[0.047]	[0.052]
low crime-worries	0.0962***	0.1769***	-	-	-
(1 (very worried) to 4)	[0.007]	[0.005]	-	-	-
own income	0.0143***	0.0140***	-0.0564***	-	-
(15 categories)	[0.002]	[0.002]	[0.006]	-	-
partner's income	0.0220***	0.0138***	-0.0439***	-	-
(15 categories: 0 if no partner)	[0.002]	[0.002]	[0.006]	-	-
gender	0.0619***	-0.0123	-0.0803**	0.0175	-0.4104***
(1=male; 2=female)	[0.013]	[0.009]	[0.031]	[0.030]	[0.032]
health limits activities	-0.3223***	-0.0880***	0.3494***	-	-0.4905***
(dummy: 1=sick)	[0.016]	[0.011]	[0.038]	-	[0.041]
white	-0.0154	0.2687***	-1.1252***	-1.2809***	0.8296***
(dummy: 1=white)	[0.022]	[0.016]	[0.054]	[0.053]	[0.059]
age 35 to 54	-0.1692***	0.1833***	-0.2701***	-0.2151***	1.0282***
(dummy: compare 16-34)	[0.017]	[0.013]	[0.042]	[0.042]	[0.046]
age 55 to 74	0.0933***	0.4268***	-0.7029***	-0.2421***	0.3645***
(dummy: compare 16-34)	[0.020]	[0.014]	[0.048]	[0.044]	[0.052]
age 75 plus	0.2574***	0.4996***	-0.8835***	-0.5494***	0.2972***
(dummy: compare 16-34)	[0.027]	[0.019]	[0.064]	[0.055]	[0.068]
employed	0.0045	0.0143	-0.0678*	-	2.2143***
(dummy: 1=employed)	[0.017]	[0.012]	[0.041]	-	[0.042]
unemployed	-0.4260***	-0.0808***	0.1835*	-	-0.3235***
(dummy: 1=unemployed)	[0.037]	[0.028]	[0.094]	-	[0.103]
university education	-0.0161	0.1184***	0.0528	-	2.0513***
(dummy: 0=other quals)	[0.017]	[0.012]	[0.041]	-	[0.043]
no qualifications	0.0112	-0.1704***	0.5636***	-	-0.8635***
(dummy: 0=non-uni quals)	[0.018]	[0.013]	[0.043]	-	[0.047]
married	0.1340***	0.0701***	-0.4167***	-0.8258***	2.6961***
(dummy: 1=yes)	[0.017]	[0.012]	[0.040]	[0.032]	[0.035]
children under 16 in house	0.0183	-0.0174	-0.0011	0.1496***	-0.1701***
(dummy: 1=yes)	[0.016]	[0.014]	[0.049]	[0.049]	[0.053]
No. Observations	16,003	26,920	27,389	27,210	28,383

Table 6.7 Regression of giving to various welfare indicators

Regression Notes:

- Standard errors under each coefficient. ***p<0.01, **p<0.05, *p<0.10
- Year dummy variables were included but not reported.
- OLS analysis: although some of the dependent variables have only a few categories, I am more interested in the sign, significance and relative importance of the coefficients than their exact value.
- The household income brackets are imperfectly constructed from income brackets available for the respondent plus income brackets available for their partner where applicable. These results are to be treated with caution then, although concurring with data from the British Household Panel Survey where exact household income figures are available.

We see that high levels of giving have a positive and significant association with every form of welfare: People in giving networks are associated with higher levels of life-satisfaction, higher household incomes, higher levels of trust, and lower levels of crime and deprivation. Likewise low levels of giving are associated with significantly lower levels of welfare of every type. We also see from the magnitude of the coefficients that for the most part, giving behaviours have an association with welfare that bears comparison with independent variables such as money, health, gender, race, employment or qualifications; giving compares to all other key social welfare variables in importance.

Note that the coefficients expressing the interaction between 'deprivation' and 'giving' are bigger than the coefficients expressing the interaction between 'crime' and 'giving' even though crime makes up part of the deprivation index. This may be because of dropping so many control variables which feature in the deprivation indicator itself. Clearly these variables are also interacting with the decision about whether or not to give. We may expect that the social environment influences giving, just as giving behaviours change the social environment. I return to this issue of causality in Section 2.4.

Income interacts positively with each of the other measures of welfare. Both one's own and one's partner's income is divided into 15 categories, but several categories difference in income does not match the interaction of giving with life-satisfaction, trust and crime.

Marriage and looking after children are both relational activities and could be said in themselves to constitute a form of giving as much time and money is given, channelled through or shared with one's family. However there is an element of constraint in these forms of giving – legal obligation having entered into the equation. Still, being married is positively and significantly correlated with every form of welfare, just like the other giving variables. Having children under 16 in the house does not increase one's welfare however. Giving out to children of this age is not as reciprocal as many other forms of giving; the welfare is generally moving out from parent to child in the short and medium term.

The other control variables are associated with welfare as expected: Crime-worry only had a 0.15 correlation with the actual crime statistics for that ward, and is therefore used as a proxy for worry in general; it is a personal characteristic that is found to affect subjective measures of welfare like trust and life-satisfaction. Sickness is negatively associated with all forms of welfare and particularly with life-satisfaction. Being white does not affect life-satisfaction but it is positively associated with everything else. Welfare outcomes are clearly getting better as people get older and progress through life to their point of optimal welfare. However life-satisfaction dips in middle-age and then more than recovers, whilst income declines from a peak in the 35-54 age bracket. Age and stage of life may not be changed, but people *do* have some control over their giving levels, which are of comparable potency in their interaction with welfare. Unemployment has, as expected, a significant negative association with wellbeing, especially life-satisfaction and incomes, although, like giving, it is associated with all the welfare variables. Education has the largest association with trust and incomes,

with no qualification being associated also with crime. Unlike giving however, education is not positively associated with life-satisfaction. Education is in itself a beneficial input from one person to another, often provided to the beneficiary at less than full cost. It is not surprising then that it is associated with better communal outcomes.

The magnitude of the association between giving and welfare must depend on which particular giving variables are used to make up the 'giver' and 'non-giver' categories, but I find that different combinations of factors still produce results of similar significance. I also see that similar associations between giving and welfare outcomes may be observed in other UK surveys (see Chapters 6a and 7).

Running the same regressions but only selecting persons from the most deprived wards (that is, those living in wards whose index of multiple deprivation is classed as 8, 9 or 10 out of 10) reveals that even the worst off people are still associated with significantly better welfare outcomes when they give/ when they represent a giving community). Whether rich or poor, giving behaviours are associated with better outcomes (Table 6.8).

Variables	life-satisfaction 1 (low) to 5	trust people in local area 1 (low trust) to 4	crime index 1(least crime)to 10	household income categories 1 (low) to 14
Data from all deprivation areas as in Table 6.7				
giver	0.0840***	0.0980***	-0.3471***	0.3709***
non-giver	-0.1156***	-0.1947***	0.3502***	-0.4041***
Impact of giving in the most deprived areas (index multiple deprivation 8-10)				
giver	0.1221**	0.0856**	-0.4908***	0.4118***
non-giver	-0.0203	-0.1733***	0.1630**	-0.2562***
Impact of giving in the least deprived areas (index multiple deprivation 1-2)				
giver	0.1175***	0.0952***	-0.1105**	0.2405**
non-giver	-0.1154***	-0.1458***	0.095	-0.6067***

Full statistical tables available in Appendix 6B. Data includes all controls used in Table 6.7

Table 6.8 Giving is significant whether the neighbourhood is better-off or deprived

6.2.3 Giving indicators

Putting private giving as an independent variable into a regression with one or another aspect of welfare as the dependent variable gives rise to problems with endogeneity. The outcome for the individual giver is dependent on the reciprocal response of the persons being invested in; it does not just depend on the investor's own giving. Thus the interaction between being a 'giver' and welfare is only significant because the individual is representative of their particular social network and its prosocial or antisocial norms in general. Indeed, we saw in Chapter 4 and 5 that giving behaviours depend on the wider social environment, which is to say that in measuring the giving-welfare interaction we are finding that people in giving *networks* are better off than people outside of such networks. To better capture the communal nature of these interactions it may be if interest to use,

instead of an individual measure of giving, a group measure of giving norms within a specific geographical area as the independent variable. For this a giving index may be constructed.

An index of giving (acting as a proxy for the prosocial character of a particular neighbourhood) may be constructed from the proportion of people in that neighbourhood that fall into the 'giver' or 'non-giver' category. Data availability is the limiting factor as to which variables should be included in the giver/non-giver dummies. However with more attention being devoted to giving, a representative mix of giving indicators is likely to be found. Important is to measure giving by multi-dimensional criteria, and giving which benefits recipients both within and outside of ones close social circle. Giving to family and friends, might be deduced from questions like, 'did you host visitors for a meal or a drink in your home in the last month,' or 'do you share shopping and cooking with others'. Wider giving might include volunteering, giving to charity or taking part in group activities. People who tick all the 'giving' boxes minus those who tick none of the boxes provide us with an 'index' of giving by which to rank the pro-sociality of different regions under study against one another. To ensure we are not just contrasting a few outliers it is necessary to avoid including so many conditions that the 'giver' and 'non-giver' group sizes being contrasted become less than 10% each of the whole survey population.

Table 6.8 illustrates an example from the citizenship survey, contrasting giving levels amongst respondents who are grouped according to the 10 government office regions available in the survey. The 'giver' and 'non-giver' categories are determined as shown in Table 6.9. The percentage of the population sampled that falls into the 'non-giver' category is subtracted from the percentage falling into the 'giver' category. Minus figure rankings therefore indicate a predominance of non-givers, and plus figures indicate a predominance of givers. Big numbers in both categories indicate the wide diversity (giving-wise) of people living in that region.

Government office region	% sample categorized a 'giver'	% sample categorized a 'non-giver'	Giving index (giver minus non-giver)
North East	8.45	12.08	-3.63
North West	9.48	11.54	-2.06
Yorkshire and the Humber	9.20	11.27	-2.07
East Midlands	10.17	12.27	-2.10
West Midlands	10.96	9.00	1.96
East of England	11.63	9.80	1.82
London	8.85	13.06	-4.22
South East	12.52	8.18	4.35
South West	13.17	7.78	5.39
Wales	10.66	11.01	-0.34

Table 6.9 Ranking different areas by their giving statistics

Taking the mean of the percentage of persons falling into three categories (1: non-giver; 3: giver; and 2: everyone in-between) gives identical rankings, but has less visual impact.

There are close correlations between the giving index by government office region and the average welfare experienced in those regions, particularly when it comes to the variables that are specifically associated with *communal* welfare. Thus the correlations between the giving index and average trust expressed by that region's respondents is 0.75 (Fig.6.10). To derive the crime and deprivation levels of the wider region I used an unweighted average of all the crime or deprivation indices pertaining to the respondents in that region. Between the giving index and average crime, the correlation is -0.84. Between the giving index and average deprivation, -0.77 (Fig.6.10). All these are statistically significant at a 95% confidence interval or higher (see Appendix B for details). The correlation between the giving index and average reported life-satisfaction is 0.52 which is not quite statistically significant at a 90% confidence interval, even though the link between giving and happiness has been the one most frequently reported in the wider literature (see for example Andreoni 1995; Aknin *et al*. 2013; Dunn *et al*. 2008; CAF 2010; English and Ray 2011; Drösser 2010).

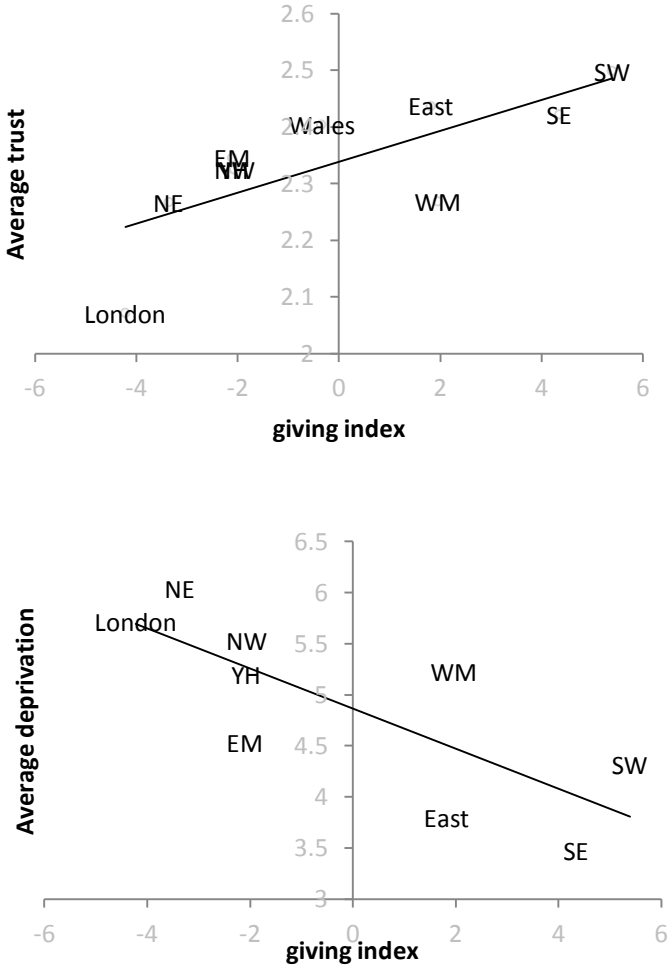


Fig.6.10 The link between the giving index and regional welfare

Being a giving community then is associated with significantly more trust and significantly less crime and deprivation. No other single aggregated influence on welfare used in Table 6.7 (average income, health, education, employment or ethnic mix) correlated with average welfare outcomes more

precisely. Giving, in capturing the underlying pro-sociality of its social drivers, clearly indicates an important aspect of development.

A giving index is a useful proxy for civic sector pro-sociality in that it can be aggregated so areas of any size to be compared to one another. Changes to the index over time will reveal how various socio-economic pressures are affecting pro-sociality in that region, and will offer a useful predictor of social cohesion and social developments.

6.2.4 Causality

Regional welfare may be associated with regional giving, and we have some indication in Chapter 5 that this association is not spurious, but the whole nature of this interaction is still in question. We need to know whether being part of a social network characterized by giving behaviours makes a person better off, or whether it is simply that less deprived, more trusting people start giving.

Although the Citizenship survey did not follow the same people over time, the data was still collected over a four year period and we can contrast how trust in neighbours changed between 2007/8 and 2010/11 in each region. The aim is to see whether being in a high or low giving region is associated with any difference to *changes* in trust in those regions. There are between 500 and 1500 persons questioned in each region and in each year, so although the change in trust in the region was not recorded by tracing the responses of the same people, we may still expect a reliable indication as to whether trust is improving or declining in that region. Fig.6.11 shows the correlation between the giving behaviours characterising the region and changes in average trust levels.

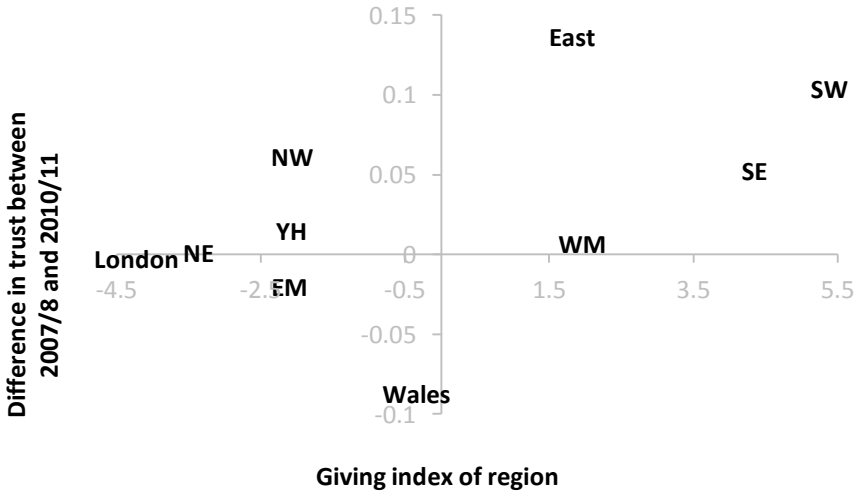


Fig.6.11 The correlation between giving behaviours and changing trust levels

Key: NE: North East; NW: North West; YH: Yorkshire and the Humber; EM: East Midlands; WM: West Midlands; E: East of England; London; SE: South East; SW: South West; Wales

First of all it can be seen that on the whole, trust increased in England between 2007/8 and 2010/11 but not in Wales. We also see that there is a visible relationship between the giving behaviours and increasing trust levels. On the whole, high giving regions saw increases in trust over the period, whereas low giving regions did not. Without Wales, this is statistically significant at a 90% confidence interval, despite the small number of observations (regression in Appendix B). Wales may be an outlier because it is under a different administrative regime than the rest of the regions, and something other than civic sector giving clearly caused a fall in trust over the period that hit Wales more than it did the various regions of England. There is nothing in this data so far then which would suggest we annul the hypothesis that giving behaviours have some influence on how trust changes over time.

Note that generalized trust levels are reflective of the trustworthiness (the norms/past behaviour) perceived by the respondent to prevail in others (see Knack and Keefer 1997; Putnam 2000), and people may well invest more in those they trust will respond appropriately. So although it takes trust to induce people to give, that trust is based on trustworthiness, and cannot be maintained in an environment where people are acting opportunistically (Kolm and Ythier 2005; Dasgupta 2009). This implies that positive relationships, reflected in the way that people allocate their time and money, must be in play if trust is to exist over time.

Deprivation data (in which crime and income data is included) is rather more difficult to analyse from this data-set because in the first year of the survey (2007/2008) the index of multiple deprivation (imd) figures for *2004* were imputed whilst for the years 2008/9; 2009/10 and 2010/11 the imd figures for *2007* were imputed. This means that the only data available on change in deprivation is from 2004 to 2007, to compare against later giving in 2008 to 2011.

The data as it stands indicates that deprivation was most reduced in areas where it started off highest. That is, in London and in the Northern regions of England. Perhaps there is most scope for improvement in such regions. High deprivation areas are also the usual targets for government intervention. These deprived areas were also the lowest giving regions in the period 2007-2011, since deprivation and low giving are found to go together. But this means that where giving was least, deprivation had been reduced the most, although the order of deprivation between the nine regions of England barely changed between 2004 and 2007.

It may then be inferred that some effective ways to limit community deprivation may be found that do *not* depend on positive community relationships between people which are reflected in giving behaviours. Since the deprivation was reduced prior to the survey, we also see that reducing deprivation in these ways does not automatically improve civic sector relations; people were not stimulated to give more by the improvements that were made independently of giving. Indeed, although the citizenship data would indicate that giving behaviours are declining generally across England and Wales between 2007/8 and 2010/11 (giving to charity reduced from 77% to 73%;

volunteering reduced from 42% to 38%) the regions where the fall in giving was biggest was London, followed by East Midlands and then the North West and the North East; all high deprivation areas.

So although giving behaviours are associated with less deprivation, it appears to be possible to limit deprivation in non-relational ways. However there is no evidence that limiting deprivation in these ways thereafter stimulates people to give more; causality does not appear to be running strongly from lower deprivation to more giving. The data does not allow us to say however whether or not giving helps to reduce deprivation.

We also see in the wider literature that it is not becoming better off that stimulates giving; people give either because they are obliged to by relational pressures, or else because they know that providing for other people will be worthwhile for its intrinsic and instrumental benefits; prosocial and wider social considerations are indispensable drivers of the giving cycle (Bekkers and Wiepking 2007; Sargeant and Shang 2010; Kolm and Ythier 2006). Although lab experiments may indicate that making the subject better off stimulates giving, my lab experiment described in Chapter 5 demonstrates that increases in endowment do not affect giving in a distant social environment, but only in a close (cohesive) relational environment. Fiske (1992) and DeScioli and Krishna (2013) also demonstrate the importance of social context in the decision to give. Hornstein *et al*. (1975) and Holloway *et al*. (1977) found in lab experiments that non-social positive or negative variables (e.g. weather reports) made no difference to giving, but *social* positive or negative variables (reports on different social behaviours) *do* affect giving. Thus we see that giving is a measurable *product* of pro-sociality which is driven by social conditions, and these prosocial behaviours potentially affect the way in which that wider social environment is likely to change. For further clarification, Chapter 7 describes these changes of welfare over time in the light of giving behaviours using British Household Panel Survey data; data in which the same person is followed over time. It examines the association between giving in one time period and various welfare outcomes in the next.

The association between giving and life-satisfaction is the link most researched already. Work by Aknin *et al*. (2013), Dunn *et al*. (2008) and Andreoni (1995) demonstrate through controlled experiments that causality can run from giving to life-satisfaction. Dew and Wilcox (2013) and the cpwlab (n.d.) go further, making the connection between happiness and relationships *in which generosity is expressed.*

Endogeneity between giving and the benefits associated with it remains an issue however in that giving does not guarantee returns to the investor. The outcome depends to a large degree on the reciprocal response of those being invested in, which is not fully under the investor's control. It is the *interaction* between people that impacts welfare. I have demonstrated therefore how the giving levels of a *region* are particularly pertinent to the welfare of that region.

6.3 Conclusion

This chapter finds that prosocial attitudes expressed in giving are positively associated with both communal and personal welfare. Relating the findings back to my model of Section 3.4 (Figs.3.3 and 3.4), we may expect that prosocial attitudes are stimulated partly by the state of cohesion in the wider socio-economic environment, but also contribute to the cohesion of that environment. This interaction between the individual's personal attitude and her wider social environment, expressed in giving flows, is an important predictor of welfare outcomes. Indeed, this chapter suggests that giving measures predict the social welfare of communities at least as well as incomes can. The evidence is mainly correlational however. There is minimal control so far for confounding effects, and little information on causality can be drawn from the survey data.

What we *could* illustrate was that the existence of prosocial relationships is not reflected in one particular form of giving, so much as in multi-dimensional giving that also crosses social boundaries. Therefore to capture the presence of considerate behaviour the giving indicator ideally needs to include: (1) Indications of time *and* money giving; and (2) indications that time and money is committed to a family and friend network as well as to externally recognizable local groups or charities that include people of different social groupings. Those whose giving patterns tick all the boxes can be considered 'top givers'. Those who tick none of them would count as the lowest level givers. From the proportion of people in a community falling into the 'giver' or 'non-giver' category, it is possible to construct an index of pro-sociality by which to monitor and compare different neighbourhoods.

Although it is already known that social cohesion contributes to positive socio-economic outcomes (Halpern 2005; Putnam 1993; 2000; cpwlab n.d.; Krishna 2002), this work hones in on civic sector pro-sociality. It analyses this pro-sociality through the prism of giving flows and proposes that such behaviours make a contribution to a healthy social environment. Giving flows enable us to say how prosocial civic sector relationships are, and to quantify their impact on welfare. Chapter 6a tests the same linkages between social drivers, giving and welfare as was carried out in this chapter but uses a different data set. Whilst the analysis is still only descriptive, the credibility of our findings is increased should the same patterns be observed across different data sets. Chapter 7 then goes on to test the model more rigorously.

Appendix 6A: Description of variables

Note that many of the variables had to be recoded so as to accommodate slight differences between the years, or else re-constructed for ease of interpretation.

Welfare variable	survey code	Values (original or derived from the code(s) shown)	Response distribution (%)	Notes
Life satisfaction: All things considered, how satisfied are you with your life as a whole?	pwhole	1=very satisfied 2=fairly satisfied 3=neither satisfied nor dissatisfied 4=fairly dissatisfied 5=very dissatisfied	36.77 51.04 6.93 4.14 1.11	19,572 obs., since the question was asked in latter 2 years only. The variable was reverse coded for display in figures and regressions for ease of interpretation
Trust: Trust people in neighbourhood	strust	1=many of the people in your neighbourhood can be trusted 2=some can be trusted 3=a few can be trusted 4=none of the people in your neighbourhood can be trusted	 51.37 33.10 13.54 1.99	37,083 obs. The variable was reverse coded for display in the main text and regressions for ease of interpretation.
Crime: Index of multiple deprivation: category for crime and disorder.	dcri7 dcri dwcri7	Deciles, 1-10. 1=least crime and disorder . . 5 . . 10=most crime and disorder	13.44 13.63 12.65 12.92 12.20 7.06 7.27 6.73 7.26 6.86	37,697 obs.
Deprivation: Index of multiple deprivation (based on employment, health, education, barriers to housing, crime, living environment and income affecting children. Data pertains to the ward the respondent comes from.)	dimd7 dimd	Deciles, 1-10 1=least deprived . . . 5 . . . 10=most deprived	13.36 12.64 12.94 12.45 12.99 7.24 6.74 7.27 6.90 7.48	35,894 obs. The England and Wales indices of multiple deprivation are not identically constructed. Wales is therefore left out of regression data, which meant dropping 1,803 observations.
Household income categories (own income plus partners income)	pincome rincome	1=no income 2=less than £4,999 3=£5,000-£9,999 and so on at £5,000 intervals until 11=£45,000-£49,999 Then larger categories 12=£50,000-£74,999 13=£75,000-£99,999 14=£100,000+	25.19% below £10,000 54.03% below £25,000. 81.70% below £50,000	33,541 obs. Caution: only *categories* of own and partner incomes were available to put together, so the total household incomes are *approximated* from summing mid-points

Appendix Table 6Ai Welfare variables.

Subjective measures of welfare include life-satisfaction being a personal measure, and trust a communal indicator of welfare. Objective measures of welfare include income as a personal measure and crime and deprivation as communal indicators of welfare.

Giving variable	survey code	Values (original or derived from the code(s) shown)	Response distribution (%)	Notes
formal volunteering in the last 12 months	zforvol	0=no 1=yes	60.01 39.99	38,283 obs.
informal help in the last 12 months	zinfvol	0=no 1=yes	41.53 58.47	38,283 obs.
civic participation in the last 12 months	zcivpar	0=no 1=yes	63.18 36.82	38,283 obs.
formal volunteering at least once a month	zformon	0=no 1=yes	74.09 25.91	38,283 obs.
frequency of formal volunteering in last 12 months	fvolfreq	1=at least once a week 2=less than once a week but at least once a month 3=less often than once a month /other	35.13 30.65 34.22	15,272 obs., since it excludes all who do not volunteer
Out of those volunteering in the last 12 months, hours given of unpaid formal volunteering in the last 4 weeks	funhrs2	0 to 234 hours	30% give 0 hours, 50% give up to 3 hours, 90% give up to 20 hours, 99% give up to 75 hours.	15,248 obs., excluding all who do not volunteer
Gave money to charity in the last 4 weeks	ggroup1-12 givech	0=no 1=yes	25.58 74.42	38,254 obs.
Total amount given to charity in the last 4 weeks	givamt givamtgp	0=do not give 1=<£4 2=£5-£9 3=£10-£19 4=£20-£49 5=£50+	26.29 20.28 14.84 16.63 15.05 6.90	37,213 obs.
Number of persons in household (persons who shop and cook as a group).	xdmhsize dmhsize	From 1 to 9+ persons Living alone Live with 1 other person Live with >1 persons	 29.40 39.06 31.54	Sharing with others indicates input into close bonding connections. 38,283 obs.
married, cohabiting or other	marstat rlivewith	married and living with spouse cohabiting other	 46.93 7.83 45.24	38,283 obs.
Takes part in a formal group without taking part in running it	funpd13	0=attends group and helps with its functioning 1=attends group but does not help run it	67.95 32.05	22,530 obs. Excludes all who do not attend groups
Not take part in a formal group (with or without	fgroup17	0=part of a group 1=not part of a group	58.68 41.32	38,281 obs.

running it)				
Mix (hold informal conversations) with people of different ethnic or religious groups	zmxoft1 zmxoft4 zmxoft5	0=little or no mixing 1=mix at least once a month in the past year	45.37 54.63	38,254 obs. Venues for mixing include in one's homes, eating/drinking places and groups or clubs. Mixing in venues where people have less choice about who they mix with was not considered.
Ethnic minorities who have close white friends	xfrwhi (if white==0)	0=no white friends 1=white friends	58.72 41.28	1,485 obs. Response only applies to ethnic minorities and was recorded in the first 2 years only
White people who have close friends of another ethnic group	xfriends (if white==1)	0=no ethnic minority friends 1=close friends of other ethnic group	82.11 17.89	13,776 obs. Response only applies to whites and was recorded in the first 2 years only

Appendix Table 6Aiii: Indicators of giving

Definition note: Formal volunteering is unpaid help towards the functioning of a group. Informal help is help offered individual to individual outside of family.

Control variable	**survey code**	**Values (original or derived from the code(s) shown)**	**Response distribution (%)**	**Notes**
No crime-fear: How worried are you about becoming a victim of crime?	wgenworr	1=very worried 2=fairly worried 3=not very worried 4=not at all worried	9.06 29.92 41.91 19.11	38,184 obs.
Since it had only a 0.15 correlation with actual incidence of crime, crime-fear is included in the subjective measures of welfare as a control for worry in general (personality).				
White vs ethnic minority	ethnic6	0=non-white 1=white	9.24 90.76	38,270 obs.
No qualifications	zquals	0=have formal qualifications 1=no formal qualification	83.58 16.42	37,178 obs. To avoid losing observations, people aged 70+ without data on qualifications were added to base groups
University qualifications		0=no university degree 1= university education	79.76 20.24	
Employed (vs every other occupation or none)	dvilo4a	0=any other occupation or none 1=employed	46.99 53.01	38,274 obs.
Unemployed (vs every other occupation or none)	dvilo4a	0=any other occupation or none 1=unemployed	97.17 2.83	38,274 obs.
Sex	rsex	1=male 2=female	44.48 55.52	38,278 obs.
Long-term illness or disability limits activities	zdill	0=no 1=yes, health limiting	77.18 22.82	38,194 obs.

Age category	rage9	1=16-24 years	8.08	38,276 obs.
		2=25-34 years	14.52	These were also divided
		3=35-44 years	18.15	into separate dummies
		4=45-54 years	16.25	with age 16-34 as the
		5=55-64 years	17.08	base category
		6=65-74 years	13.59	
		7=75-84 years	9.34	
		8=85+ years	2.99	
Married and living with spouse	marstat	0=no	53.07	38,283 obs.
		1=yes	46.93	
Children under 16 in the household	numchild xnumchild	0=none	86.91	34,065 obs.
		1=one or more	13.09	
Own income	rincome	0=no income	2.85	33,527 obs.
		1=under £2,500	6.33	
		2=2,500-£4,999	9.22	
		3=£5,000-£9,999	20.12	
		and so on at £5,000		
		intervals until	74.36%	
		11=£45,000-£49,999	below	
		Then larger categories	£25,000.	
		12=£50,000-£74,999	94.77%	
		13=£75,000-£99,999	below	
		14=£100,000+	£50,000	
Partners income	pincome	0=no partner or partner		32,974 obs.
		with no income	49.89	
		1=under £2,500	3.44	
		2=2,500-£4,999	4.68	
		3=£5,000-£9,999	7.36	
		and so on at £5,000		
		intervals until	83.81%	
		11=£45,000-£49,999	below	
		Then larger categories	£25,000.	
		12=£50,000-£74,999	96.29%	
		13=£75,000-£99,999	below	
		14=£100,000+	£50,000	
Survey year	survyear	1=2007-08	24.39	38,283 obs.
		2=2008-09	24.38	Dummy variables for
		3=2009-10	24.31	survey year included
		4=2010-11	26.92	with '1' as the base year
Government office region	gor	North East	5.81	38,283 obs.
		North West	13.56	
		Yorkshire and the	9.89	
		Humber	8.69	
		East Midlands	9.52	
		West Midlands	10.33	
		East of England	11.09	
		London	15.17	
		South East	9.81	
		South West	6.10	
		Wales		

Appendix Table Aiii: Control variables

Appendix 6B: Data corresponding to figures in text

Note that much of this data is coded differently to the graphic representations in the text.

	Mean welfare of those who do not attend groups	Mean welfare of those who attend groups, but do not help run them	Mean welfare of those who attend *and* help run a group
life-satisfaction (1:high to 5)	1.88	1.80	1.75
trust (1:high to 4)	1.79	1.66	1.53
crime (1:low to 10)	5.73	4.81	4.35
deprivation (1:low to 10)	5.20	4.80	4.30

Appendix Table 6Bi Group involvement and welfare

	Mean welfare if no volunteering	Mean welfare if volunteer at least once a year	Mean welfare if volunteer at least once a month	Mean welfare if volunteer at least once a week
life-satisfaction (1:high to 5)	1.86	1.83	1.79	1.75
trust (1:high to 4)	1.88	1.64	1.59	1.60
crime (1:low to 10)	5.03	4.61	4.49	4.63
deprivation (1:low to 10)	5.20	4.57	4.42	4.68

Appendix Table 6Bii Increasing levels of volunteering and welfare

	mean welfare if no charitable giving	mean welfare if offer 0-£4 in last 4 weeks	mean welfare if give £5-£9 in last 4 weeks	mean welfare if give £10-£19 in last 4 weeks	mean welfare if give £20-£49 in last 4 weeks	mean welfare if give over £50 in last 4 weeks
life-satisfaction (1:high to 5)	1.92	1.89	1.82	1.76	1.69	1.60
trust (1:high to 4)	1.84	1.71	1.63	1.59	1.52	1.43
crime (1:low to 10)	5.13	4.85	4.64	4.52	4.39	4.27
deprivation (1:low to 10)	5.30	5.02	4.74	4.52	4.26	3.96

Appendix Table 6Biii Increasing levels of charitable giving and welfare

	Mean welfare of sample	Mean welfare of those in households >1	Mean welfare of households who cohabit	Mean welfare of those in single person households	Mean welfare of households who are married
life-satisfaction (1:high to 5)	1.82	1.75	1.81	1.97	1.67
trust (1:high to 4)	1.66	1.66	1.80	1.68	1.54
crime (1:low to 10)	4.72	4.56	4.99	5.04	4.29
deprivation (1:low to 10)	4.77	4.60	4.97	5.18	4.24

Appendix Table 6Biv Living with others and welfare

	Mean welfare if no volunteering and no charitable giving in the last month	Volunteer monthly but did not give to charity in last 4 weeks	Did give to charity in last 4 weeks but do not volunteer monthly	Did give to charity in last 4 weeks *and* volunteer monthly
life-satisfaction (1:high to 5)	1.93	1.84	1.81	1.71
trust (1:high to 4)	1.87	1.66	1.65	1.49
crime (1:low to 10)	5.20	4.64	4.73	4.25
deprivation (1:low to 10)	5.38	4.75	4.77	4.19

Appendix Table 6Biii Multi-directional giving and welfare

	mean welfare people who do not volunteer formally nor help informally	total sample mean welfare response, volunteers and non-volunteers	mean response if offering formal volunteering last 12 months	mean response if offering informal help AND formal volunteering last 12 mths	mean response if offering informal help but no formal volunteering last 12 mths
life-satisfaction (1:high to 5)	1.86	1.82	1.75	1.75	1.85
trust (1:high to 4)	1.77	1.66	1.53	1.52	1.72
crime (1:low to 10)	5.03	4.72	4.35	4.33	4.91
deprivation (1:low to 10)	5.21	4.77	4.30	4.26	4.95

Appendix Table 6Bvi Welfare depending on whether giving is formal or informal

	mean welfare of people who do not volunteer formally nor engage civically	Mean welfare if offering formal volunteering last 12 months	Mean welfare if civic participation AND formal volunteering last 12 months	Mean welfare if civic participation but no formal volunteering last 12 months	Mean welfare of total sample, volunteers and non-volunteers
life-satisfaction (1:high to 5)	1.84	1.75	1.77	1.90	1.82
trust (1:high to 4)	1.77	1.53	1.48	1.69	1.66
crime (1:low to 10)	5.03	4.35	4.28	4.82	4.72
deprivation (1:low to 10)	5.18	4.30	4.18	4.86	4.77

Appendix Table 6Bvii Welfare depending on whether civic action is combined with volunteering or not

Regression data:

dependent variable	independent variable[i]	n° obs	coeff.	std. error	p-value	interpretation
life-satisfaction	attend group but not help run it	11,951	.077798	.01716	0.000	Attending groups and high levels of welfare go together
trust	attend group but not help run it	22,126	.130315	.01174	0.000	
crime	attend group but not help run it	22,596	-.234929	.04022	0.000	
deprivation	attend group but not help run it	21,497	-.407232	.04159	0.000	
life-satisfaction	The additional impact of volunteering if already attend groups	10,999	.048061	.01612	0.003	Even amongst those who already attend groups, volunteering has an additional positive impact on welfare
trust	The additional impact of volunteering if already attend groups	21,890	.134579	.01069	0.000	
crime	The additional impact of volunteering if already attend groups	22,137	-.456381	.03962	0.000	
deprivation	The additional impact of volunteering if already attend groups	21,128	-.518931	.04011	0.000	
life-satisfaction	volunteer at least once a year	19,572	.103673	.01198	0.000	Volunteering and high levels of welfare go together
trust	volunteer at least once a year	37,083	.223960	.00821	0.000	
crime	volunteer at least once a year	37,697	-.618009	.02914	0.000	
deprivation	volunteer at least once a year	35,894	-.797418	.02985	0.000	
life-satisfaction	number of hours volunteered amongst volunteers	7,575	.000960	.00060	0.108	Although volunteering matters, adding additional hours does not significantly improve life-satisfaction and trust (although it is positively correlated). Very long hours of volunteering are associated with *more* crime and deprivation (volunteering maybe taking the place of paid work).
trust	number of hours volunteered amongst volunteers	14,902	.000563	.00037	0.124	
crime	number of hours volunteered amongst volunteers	15,039	.002776	.00139	0.045	
deprivation	number of hours volunteered amongst volunteers	14,338	.005241	.00524	0.000	
life-satisfaction	gave to charity in the last 4 weeks	19,555	.142811	.01315	0.000	Giving to charity and high levels of welfare go together
trust	gave to charity in the last 4 weeks	37,058	.239751	.00928	0.000	
crime	gave to charity in the last 4 weeks	37,669	-.550857	.03279	0.000	
deprivation	gave to charity in the last 4 weeks	35,868	-.708401	.03359	0.000	

life-satisfaction	sum given to charity amongst donors	13,831	.069253	.00495	0.000	Out of those already giving to charity, giving more has an additional positive impact on welfare
trust	sum given to charity amongst donors	26,679	.067570	.00347	0.000	
crime	sum given to charity amongst donors	26,989	-.146009	.01266	0.000	
deprivation	sum given to charity amongst donors	25,645	-.255394	.01288	0.000	
life-satisfaction	single *vs*. multi-person household	19,572	.212955	.01268	0.000	Sharing a home with others and higher levels of welfare go together
trust	single *vs*. multi-person household	37,083	.021323	.00895	0.017	
crime	single *vs*. multi-person household	37,697	-.456705	.03144	0.000	
deprivation	single *vs*. multi-person household	35,894	-.561800	.03232	0.000	
life-satisfaction	cohabit *vs.* married	10,478	.14040	.0206	0.000	Married people experience higher levels of welfare than those who cohabit
trust	cohabit *vs.* married	20,399	.25634	.0149	0.000	
crime	cohabit *vs.* married	20,625	-.69862	.0538	0.000	
deprivation	cohabit *vs.* married	19,650	-.71982	.0542	0.000	
life-satisfaction	offered informal help in the last 12 months *if* not volunteering	11,952	.014629	.01564	0.350	Offering informal help (perhaps under the pressure of personal circumstance) but not freely volunteering adds to communal measures of welfare, but not to personal life-satisfaction. The interaction with welfare is much smaller than the difference that formal volunteering makes
trust	offered informal help in the last 12 months *if* not volunteering	22,127	.048218	.01094	0.000	
crime	offered informal help in the last 12 months *if* not volunteering	22,497	-.120277	.03738	0.001	
deprivation	offered informal help in the last 12 months *if* not volunteering	21,498	-.242688	.03874	0.000	
life-satisfaction	formal volunteering if informal help also	10,714	.096604	.01552	0.000	Amongst those offering informal help, adding formal volunteering has a large and positive additional interaction with welfare (compare coefficients to those preceding)
trust	formal volunteering if informal help also	21,818	.199588	.01028	0.000	
crime	formal volunteering if informal help also	22,072	-.574374	.03729	0.000	
deprivation	formal volunteering if informal help also	21,056	-.703616	.03784	0.000	
life-satisfaction	ethnic minority in conversation with whites	1,794	.074157	.04835	0.125	Ethnic minorities (disadvantaged groups) experience higher levels of communal welfare when having informal conversations with white people, although it does not significantly alter personal life-satisfaction
trust	ethnic minority in conversation with whites	3,336	.095760	.03508	0.006	
crime	ethnic minority in conversation with whites	3,513	-.260206	.11041	0.018	
deprivation	ethnic minority in conversation with whites	3,447	-.443985	.11612	0.000	

life-satisfaction	whites in conversation with ethnic minorities	17,773	.018629	.01228	0.129	White people (advantaged groups) who have informal conversations with ethnic minorities do not experience especial benefit (and terms of trust and crime, they are worse off)
trust	whites in conversation with ethnic minorities	33,709	-.050949	.00838	0.000	
crime	whites in conversation with ethnic minorities	34,142	.414613	.02984	0.000	
deprivation	whites in conversation with ethnic minorities	34,406	-.032307	.03072	0.293	
trust	ethnic minorities friends with whites	1,387	.146457	.04551	0.001	Ethnic minorities (disadvantaged groups) benefit from having white friends
crime	ethnic minorities friends with whites	1,472	-.516813	.13884	0.000	
deprivation	ethnic minorities friends with whites	1,447	-.934673	.14476	0.000	
trust	whites friends with ethnic minorities	13,355	-.028947	.01724	0.093	White people (advantaged groups) who have ethnic minority friends tend to be worse off
crime	whites friends with ethnic minorities	13,292	.513180	.06371	0.000	
deprivation	whites friends with ethnic minorities	12,909	.133479	.06443	0.038	
average trust of region	giving index of region	10	.027318	.00849	0.012	Regions where more people are involved in giving experience higher levels of communal welfare
average crime index of region	giving index of region	10	-.191236	.04354	0.002	
average deprivation index of region	giving index of region	9	-.196444	.06061	0.014	
average life-satisfaction of region	giving index of region	10	.004240	.00242	0.118	Regions where more people are involved in giving are happier, but not with statistical significance
change in trust between 2007/8 and 2010/11	giving behaviours (average for region of % giving to charity and %)volunteering)	9 (excl. Wales)	.009828	.00443	0.062	Regions with a higher giving index saw increasing trust over time

[i]Statistical significance was established using OLS regressions with welfare as the dependent variable and one single prosocial behaviour as the independent variable in each case. No controls.

How belonging to different kinds of organisations interacts with welfare:

	Life-satisfaction	**Trust**	**Crime**	**Deprivation**
child education	0.01758	0.01306	-0.19343***	-0.24345***
	0.0265	0.0144	0.0527	0.0533
youth activities	-0.01310	-0.01952	-0.08890	-0.00176
	0.0302	0.0162	0.0594	0.0601
adult education	-0.07276**	-0.05290***	0.13369**	0.12636*
	0.0329	0.0175	0.0643	0.0651
sport	0.10980***	0.09675***	-0.45284***	-0.73706***
	0.0214	0.0115	0.0423	0.0428
religion	0.09473***	0.09456***	-0.13571***	-0.25737***
	0.0242	0.0133	0.0488	0.0494
politics	-0.00110	0.08186**	-0.18224	-0.06515
	0.0593	0.0318	0.1166	0.1183
the elderly	0.06182*	0.03770**	-0.18889***	-0.08221
	0.0344	0.0187	0.0686	0.0696
social welfare	-0.12759***	-0.01026	-0.02673	-0.11635*
	0.0324	0.0161	0.0588	0.0595
safety and first aid	0.00224	-0.10599***	0.06973	0.19431**
	0.0411	0.0227	0.0828	0.0840
environment	0.01639	0.14913***	-0.66587***	-0.71773***
	0.0319	0.0168	0.0619	0.0624
human rights	-0.04595	-0.10926***	0.81421***	0.77682***
	0.0565	0.0292	0.1064	0.1074
citizens groups	0.12149***	0.20708***	-0.89287***	-0.90704***
	0.0467	0.0236	0.0869	0.0880
neighbourhood groups	0.06766**	0.13888***	-0.17805***	-0.34328***
	0.0304	0.0161	0.0591	0.0595
recreation clubs	0.03125	0.11379***	-0.24791***	-0.33045***
	0.0231	0.0125	0.0460	0.0465
unions	0.00818	0.05365**	0.27853***	0.21913***
	0.0410	0.0224	0.0824	0.0837
Number of observations	9,277	27,082	27,438	26,278

OLS: Coefficients of all the different types of groups in one regression. No further control variables.
Standard errors under each coefficient. ***p<0.01, **p<0.05, *p<0.10

The welfare impact of having cross-cultural conversations and friendships, controlling for poverty:

	Welfare effect and statistical significance of mixing, controlling for income:		**Welfare effect and statistical significance of cross cultural friendships, controlling for income:**	
	For ethnic minorities	**For whites**	**For ethnic minorities**	**For whites**
life satisfaction	none	none	no data	no data
trust	positive**	negative*	positive**	none
crime	positive**	negative***	positive**	negative***
deprivation	positive**	none	positive***	negative***

***p<0.01, **p<0.05, *p<0.10 (full regression details in Appendix B)

Table 6Bviii: Relationships across social boundaries, controlling for income

As a robustness check we may add controls for income (own and partner's), for age and for education into regressions testing the welfare impact of cross-cultural interaction. This is to check if poverty is the key driver: disadvantaged ethnic minorities living in deprived areas only get to interact with the least well-off of white people for example. The results indicate that whilst poverty indeed plays a role, the interaction between the type of relationship and welfare retains its significance. Although higher incomes (controlling for age) and education are associated with better communal outcomes, I still find that ethnic minorities face better communal conditions when they have white conversationalists and friends, whilst white people with ethnic minority friends mostly face worse communal conditions. Informal conversations (mixing) across ethnic boundaries controlling for income, age and education has a positive correlation with the welfare of ethnic minorities:

	life-satisfaction	trust	crime	deprivation
ethnic minorities mix with whites	**0.0657**	**0.0855****	**-0.2509****	**-0.3292****
	[0.057]	[0.040]	[0.126]	[0.128]
own income	0.0091	0.0196***	-0.0416**	-0.0859***
	[0.007]	[0.005]	[0.017]	[0.017]
partner income	0.0397***	0.0219***	-0.1149***	-0.1602***
	[0.006]	[0.005]	[0.015]	[0.015]
age category	0.0117	0.0823***	-0.0959***	-0.1223***
	[0.014]	[0.010]	[0.033]	[0.034]
university education	-0.028	0.0672*	-0.2846**	-0.4783***
	[0.051]	[0.038]	[0.121]	[0.122]
no qualifications	-0.0183	-0.1285***	0.3853***	0.6903***
	[0.058]	[0.043]	[0.137]	[0.139]
Observations	1,474	2,758	2,900	2,843
R-squared	0.03	0.05	0.05	0.10

*** p<0.01, ** p<0.05, * p<0.1 Standard errors in brackets

Informal conversations (mixing) across ethnic boundaries controlling for income, age and education has a negative correlation with the welfare of white people:

	life-satisfaction	trust	crime	deprivation
whites mix with ethnic minorities	**0.0203**	**-0.0169***	**0.4206*****	**0.0202**
	[0.014]	[0.009]	[0.034]	[0.034]
own income	0.0141***	0.0223***	-0.0830***	-0.1252***
	[0.002]	[0.002]	[0.006]	[0.006]
partner income	0.0372***	0.0251***	-0.1052***	-0.1409***
	[0.002]	[0.001]	[0.005]	[0.005]
age category	0.0381***	0.0973***	-0.1487***	-0.1812***
	[0.004]	[0.002]	[0.009]	[0.009]
university education	-0.0025	0.1665***	-0.042	-0.2046***
	[0.018]	[0.012]	[0.044]	[0.044]
no qualifications	-0.0627***	-0.1996***	0.7099***	0.9288***
	[0.019]	[0.012]	[0.045]	[0.045]
Observations	14,784	28,290	28,602	27,116
R-squared	0.04	0.10	0.06	0.10

*** p<0.01, ** p<0.05, * p<0.1 Standard errors in brackets

Friendships across cultural boundaries controlling for income, age and education has a negative correlation with the welfare of white people and a positive correlation with the welfare of ethnic minorities.

	For ethnic minorities			For white people		
	trust	crime	deprivation	trust	crime	deprivation
cross cultural friends	**0.1203****	**-0.3670****	**-0.6046*****	**-0.0097**	**0.5251*****	**0.2263*****
	[0.050]	[0.152]	[0.151]	[0.018]	[0.067]	[0.066]
own income	0.0181**	-0.0731***	-0.1320***	0.0190***	-0.0924***	-0.1431***
	[0.009]	[0.027]	[0.027]	[0.002]	[0.009]	[0.009]
partner income	0.0239***	-0.1586***	-0.2110***	0.0258***	-0.1174***	-0.1540***
	[0.007]	[0.023]	[0.023]	[0.002]	[0.007]	[0.007]
age category	0.0829***	-0.1507***	-0.1981***	0.1066***	-0.1932***	-0.2199***
	[0.016]	[0.048]	[0.048]	[0.004]	[0.015]	[0.014]
university education	0.1003*	-0.0349	-0.1571	0.1679***	0.0566	-0.1432**
	[0.059]	[0.180]	[0.178]	[0.019]	[0.072]	[0.071]
no qualifications	-0.0446	0.3582*	0.6456***	-0.1966***	0.7141***	1.0007***
	[0.067]	[0.205]	[0.202]	[0.019]	[0.074]	[0.073]
Observations	1,152	1,219	1,197	11,344	11,298	10,969
R-squared	0.057	0.078	0.166	0.104	0.062	0.112

*** p<0.01, ** p<0.05, * p<0.1 Standard errors in brackets

Giving has a significant interaction with welfare whether deprivation is great or little:

Impact of giving in the most deprived areas (index multiple deprivation 8-10):

Variables	life-satisfaction 1 (low) to 5	trust people in local area 1 (low trust) to 4	crime index 1 (least crime) to 10	household income categories 1 (low) to 14
giver	0.1221**	0.0856**	-0.4908***	0.4118***
(dummy: 1=giver)	[0.058]	[0.040]	[0.113]	[0.121]
non-giver	-0.0203	-0.1733***	0.1630**	-0.2562***
(dummy: 1=non-giver)	[0.042]	[0.027]	[0.074]	[0.081]
own income	0.0191***	0.0104**	-0.0161	-
(15 categories)	[0.007]	[0.005]	[0.013]	-
partner's income	0.0190***	0.0099**	-0.0295**	-
(15 categories: 0 if no partner)	[0.007]	[0.005]	[0.013]	-
low crime-worries	0.0766***	0.1891***	-	-
(1 (very worried) to 4)	[0.015]	[0.010]	-	-
gender	0.0651**	0.0099	-0.1032*	-0.4152***
(1=male; 2=female)	[0.030]	[0.020]	[0.055]	[0.058]
health limits activities	-0.3070***	-0.0376	-0.0332	-0.3558***
(dummy: 1=sick)	[0.036]	[0.023]	[0.064]	[0.069]
white	0.0103	0.1513***	-0.4877***	0.6639***
(dummy: 1=white)	[0.044]	[0.030]	[0.081]	[0.089]
age 35 to 54	-0.1228***	0.1999***	-0.1743**	0.5491***
(dummy: compare 16-34)	[0.038]	[0.026]	[0.073]	[0.079]
age 55 to 74	0.1403***	0.4532***	-0.4442***	0.1694*
(dummy: compare 16-34)	[0.045]	[0.030]	[0.083]	[0.090]
age 75 plus	0.2993***	0.5382***	-0.4742***	0.0553
(dummy: compare 16-34)	[0.062]	[0.040]	[0.111]	[0.120]
employed	0.033	-0.0013	-0.0384	2.0284***
(dummy: 1=employed)	[0.037]	[0.026]	[0.072]	[0.074]
unemployed	-0.3842***	0.0128	0.0459	-0.4486***
(dummy: 1=unemployed)	[0.072]	[0.052]	[0.142]	[0.157]
university education	0.0102	0.1750***	0.1232	1.7828***
(dummy: 0=other quals)	[0.044]	[0.029]	[0.082]	[0.086]
no qualifications	0.0298	-0.1219***	0.2970***	-0.6744***
(dummy: 0=non-uni quals)	[0.037]	[0.025]	[0.068]	[0.074]
married	0.1361***	0.0742***	-0.3829***	2.4106***
(dummy: 1=yes)	[0.042]	[0.027]	[0.075]	[0.064]
children under 16 in house	-0.0396	-0.0079	0.1038	-0.1606
(dummy: 1=yes)	[0.038]	[0.035]	[0.095]	[0.105]
year2	-	0.0523**	-0.3035***	0.0855
	-	[0.026]	[0.074]	[0.079]
year3	-	0.0332	-0.4866***	0.1561**
	-	[0.025]	[0.071]	[0.076]
year4	0.0155	0.1893***	-4.9888***	0.5152***
	[0.038]	[0.038]	[0.110]	[0.115]
Observations	3,350	6,932	6,776	7,254
R-squared	0.093	0.139	0.305	0.424

*** p<0.01, ** p<0.05, * p<0.1 Standard errors in brackets

Impact of giving in the least deprived areas (index multiple deprivation 1-2):

Variables	life-satisfaction 1:low to 5	trust people in local area 1:low trust to 4	crime index 1 (least crime) to 10	household income categories 1:low to 14
giver	0.1175***	0.0952***	-0.1105**	0.2405**
(dummy: 1=giver)	[0.031]	[0.021]	[0.051]	[0.101]
non-giver	-0.1154***	-0.1458***	0.095	-0.6067***
(dummy: 1=non-giver)	[0.041]	[0.027]	[0.065]	[0.128]
own income	0.0121***	0.0041	0.0007	-
(15 categories)	[0.004]	[0.003]	[0.006]	-
partner's income	0.0163***	0.0086***	0.0112*	-
(15 categories: 0 if no partner)	[0.004]	[0.002]	[0.006]	-
low crime-worries	0.0999***	0.1028***	-	-
(1 (very worried) to 4)	[0.013]	[0.009]	-	-
gender	0.0593**	-0.0662***	-0.0527	-0.5646***
(1=male; 2=female)	[0.023]	[0.016]	[0.038]	[0.068]
health limits activities	-0.2914***	-0.0668***	0.0481	-0.4933***
(dummy: 1=sick)	[0.030]	[0.019]	[0.047]	[0.093]
white	-0.0096	0.2082***	-0.1211	0.3864**
(dummy: 1=white)	[0.054]	[0.036]	[0.086]	[0.171]
age 35 to 54	-0.2225***	0.1062***	-0.1548***	1.4508***
(dummy: compare 16-34)	[0.032]	[0.022]	[0.053]	[0.104]
age 55 to 74	0.0003	0.2659***	-0.1430**	0.4497***
(dummy: compare 16-34)	[0.037]	[0.025]	[0.060]	[0.117]
age 75 plus	0.0873*	0.3151***	-0.0416	0.3712**
(dummy: compare 16-34)	[0.049]	[0.032]	[0.078]	[0.152]
employed	-0.0552*	0.0102	0.0299	2.2189***
(dummy: 1=employed)	[0.030]	[0.020]	[0.049]	[0.091]
unemployed	-0.4702***	-0.0623	-0.0874	-0.7937***
(dummy: 1=unemployed)	[0.090]	[0.061]	[0.146]	[0.290]
university education	-0.0292	0.0466***	0.0598	1.7852***
(dummy: 0=other quals)	[0.027]	[0.018]	[0.044]	[0.083]
no qualifications	0.0188	-0.0753***	0.0254	-0.9650***
(dummy: 0=non-uni quals)	[0.038]	[0.025]	[0.062]	[0.121]
married	0.1585***	0.0192	-0.1361***	2.7604***
(dummy: 1=yes)	[0.029]	[0.019]	[0.046]	[0.074]
children under 16 in house	0.0405	0.0392*	-0.0153	-0.1224
(dummy: 1=yes)	[0.029]	[0.022]	[0.054]	[0.107]
year2	-	0.0228	0.018	0.0404
	-	[0.024]	[0.058]	[0.118]
year3	-	0.0211	-0.0909	0.1576
	-	[0.023]	[0.057]	[0.113]
year4	-0.0388*	-0.0192	-0.8190***	0.1896*
	[0.023]	[0.021]	[0.050]	[0.099]
Observations	4,563	6,730	6,907	7,118
R-squared	0.099	0.079	0.078	0.44

*** p<0.01, ** p<0.05, * p<0.1 Standard errors in brackets

Appendix 6C: Selected data from Berkshire survey

Full data available from the Berkshire Community Foundation website (Zischka *et al.* 2014). Selected notes from the data duplicated here with original note numbering retained. Some is relevant to the text in Section 6.2.1.4 and some to the text in Section 7.5.

Category of charitable giving per month	Mean of percentage of persons in each category. Category 1=volunteer (help run a group) (72%) Category 2=participate in groups but do not volunteer (18%) Category 3=no participation in groups (10%)
up to £5 (20%)	1.62
£5-£25 (46%)	1.38
£25-£80 (19%)	1.35
£80-£250 (5%)	1.20
£250-£450 (6%)	1.17
over £450 (4%)	1.00

Note 9: Relationship between giving charitable donations and level of group involvement

	Proportion of persons talking to neighbours more than once a week *and* who invited guests in the last month (69%) compared to respondents who did not exhibit this combination (31%)	Proportion of persons helping individuals out informally more than once or twice a year (85%) compared to those giving support less often (15%)
give less than £5 per month	.67	.76
give £5-£25 per month	.62	.87
give over £25 per month	.76	.85
no group participation	.55	.64
part of a group but not running it	.7	.85
help run a group	.71	.88

Note 10: The relationship between formal and informal giving

	Proportion of persons talking to neighbours more than once a week (73%) compared to those who talked less than weekly (27%)
Did not invite people round (10%)	.40
Invited people round for a snack or meal in the last month (90%)	.76

Note 11a: Relationship between talking to neighbours and inviting people round

	Proportion of persons talking to neighbours more than once a week *and* who invited guests in the last month (69%) compared to respondents who did not exhibit this combination (31%)
Investing time or money at least several times in the year to informally help out individuals not living with the respondent (85%)	.73
Not investing time or money to informally help individuals outside the household (15%)	.44
Takes dependents out at least weekly (21%)	.80
Takes dependents out less often (45%)	.67
No dependents (34%)	.64

Note 11b: Further relationships between various forms of informal giving

Council area	Proportion of persons involved in groups that serve outside of their local area (29%) as opposed to only internally (71%)
Bracknell	42.76
Windsor and Maidenhead	38.46
Wokingham	38.10
West Berkshire	25.00
Reading	20.00
Slough	16.67

Note: The circle of interest is in terms of geographical location, not in terms of crossing religious and racial boundaries. In the latter instance, multi-cultural areas (which are usually more deprived) are likely to have cross cultural interaction not because of consideration for others, but simply because of who is around. Note also, the picture of giving in terms of money is rather different, as most people (83%) give across geographical boundaries, people in less well-off areas to no lesser degree.

Note 12: The relationship between cross-boundary interests and council area – the involvement of people in the more deprived communities is less likely to extend beyond their local area.

		Proportion of persons giving outside of their narrow circle of friends and family (87%), compared to those giving only to close friends and family (13%)
Giving money	give less than £5 per month	.32
	give £5-£25 per month	.38
	give over £25 per month	.55
Giving time	no group participation	.2
	part of a group but not help run it	.42
	help run a group	.45

Note 13: The relationship between informal giving outside of a narrow circle of interest and formal giving

	Proportion of persons giving informally (talk to neighbours more than once a week *and* invited guests in the last month *and* gave time or money to help an individual more than a couple of times a year (61%) compared to respondents who did not exhibit this combination (39%)
Investing in people outside of close friends and relations circle (42%)	.70
Investing only in close friends and relations, not outside that circle (58%)	.56

Note 14: The relationship between a wider circle of interest and generosity in the informal sphere

	Proportion of persons involved in organisations that serve interests outside of the local area (56%) compared to those involved only locally (44%)	Proportion of persons giving money outside of the local area (87%) compared to those giving only locally (13%)
give less than £5 per month (20%)	.14	.67
give £5-£25 per month (46%)	.26	.85
give over £25 per month (34%)	.45	.88

Note 15a: The relationship between size of donation and circle of interest

	Proportion of respondents involved in these groups who are givers (61%) (i.e. they give over £5 per month *and* volunteer time to help run an organisation) compared to everyone else (39%)
Only involved in racially and religiously homogenous groups serving locally (44%)	.54
Involved in groups serving across boundaries of locality, race and religion (56%)	.79
Charitable giving exclusively for local, even family benefit, and not benefiting people of a different race or religion (13%)	.42
Charitable giving outside geographical area or to people of a different race or religion (these people may give as above as well) (87%)	.67

Note 15b: The relationship between being giving in multiple ways (time and money) and having a wide circle of interest

	Mean of charitable giving category (1=under £5; 2=£5-£25; 3=over £25)
Gave only locally (11%)	1.73
Gave only nationally (27%)	2.00
Gave both locally and nationally (62%)	2.26

Note 16: The relationship between size of donation and circle of interest

Most charitable givers give in these ways	• Cash into collecting tins; • Buy goods at a fundraising event/from a shop or catalogue; • Provide gifts in kind e.g. clothes, food, prizes • Sponsor someone • Buy raffle tickets
Top givers additionally lean towards	• Giving by direct debit, standing order, covenant or debit from salary, payroll giving; • Make occasional donations by cheque or card.
Less often, and also rather the bigger givers, people also	• Give blood • Give to collections in a place of worship; • Use a charity envelope

Note 17: Modes of giving

Category of charitable giving per month	Average frequency with which people gave (3=give at least once a month (62%); 2= give several times a year (22%); 1=give once or twice a year (16%))
Up to £5 (20%)	1.67
£5-£25 (46%)	2.54
over £25 (34%)	2.89

Note 18: The relationship between frequency of giving and size of donation

Category of charitable giving per month	Proportion of people who feel alright (83%), compared to those just about getting by/finding things difficult (17%)	Proportion of people with a partner (74%) compared to those who were single (26%)	Proportion of people with a university education (64%) compared to those who do not have one (36%)
Up to £5 (20%)	.57	.62	.43
£5-£25 (46%)	.85	.74	.66
Over £25 (34%)	.94	.82	.74
	Note: the people feeling most comfortably off were those in the £800-£1,250/month income bracket, not the higher income brackets!		

Note 20: Relationship between giving and (1) feeling well off; (2) having a partner and (3) education

Chapter 6a. **Social motivators, giving flows, and welfare outcomes using Understanding Society data**

6a.1 Introduction and data

This chapter is an extension of Chapter 6, in that it examines the same associations between giving, expressive of civic sector pro-sociality, and desirable welfare outcomes. Here however I use the most up-to-date data available on giving and welfare for Britain: the Understanding Society dataset. Understanding Society has a different set of relevant variables, and I can show from it that the case made in Chapter 6 still holds with a different data-set but when the same principles are applied.

Understanding Society is a UK Household Longitudinal study which began in 2009. It replaces the British Household Panel Survey, which ran from 1991-2008. Waves 1-3 of Understanding Society (2009-2012) were available at the time of analysis. The sub-dataset used concerned persons over the age of 16 who had household data available as well as answering an individual survey. I ensured that the ethnic minority sub-sample was excluded from the data. Most of the relevant socio-economic questions were asked only in Wave 1, to which individuals I added their responses to giving questions that were found only in Wave 3. I also pulled in household data, and then treated the whole thing like a pooled survey, since the time span at the time of analysis was too short to use the data in its panel form. From a pool of about 43,500 respondents in Wave 1, this provided us with a just over 25,000 persons answering most of the relevant questions. Details of each variable used in this analysis are found in the Appendix 6a.

The top 10% of givers were separated from the bottom 10% of non-givers on the basis of multiple indicators of giving which are shown in Table 6a.1. The choice of variables attempts to include elements of giving both within one's own informal circle of contacts (bonding social capital), and also outside of these circles (bridging social capital) through more the formalized organizational channels provided by charities and organisations.

	Close personal ties	Giving outside of one's close social circle	Observations
Giver	Had friends or family round for a drink or a meal in the last month	- Gave at least £10 in the last 12 months to charity - Volunteered in the last 12 months - Either active in an organisation or member of an organisation	10.39% of the sample in wave 1 (2,625 observations)
Non-giver	Did not have friends or family round for a drink or a meal in the last month	- No volunteering in the last 12 months - Not active in an organisation - Excluded from the non-giving category if donated more than £5 to charity in the last year.	10.11% of the sample in wave 1 (2,553 observations)
Everyone in between	Everybody imputed to Wave 1 who answered questions on volunteering, organisational involvement and having visitors and was neither a giver nor a non-giver		79.50% of the sample in wave 1 (20,081 observations)

Table 6a.1 Creation of a giving variable using Understanding Society data

From this data, two dummy variables were created. The top 10% givers compared to everyone else, and the bottom 10% of non-givers compared to everyone else.

6a.2 Links between giving and its social drivers

The literature review in Chapter 3 suggests that civic sector pro-sociality is driven by the pressures and incentives afforded by one's wider social environment, and also by tensions between one's own other-centred and self-centred interests. I have suggested that the extent to which these combined issues bring someone to allocate their resources to other people or to an interpersonal activity is an indicator of the pro-sociality of a person. This is to say that giving is one measurable expression of civic sector pro-sociality. If this hypothesis is robust, then there should be evidence, as in Chapter 4, of a correlation between giving behaviours and positive relational ties, between giving behaviours and a comparatively advantageous socio-economic status (people are part of an inter-personal network that 'delivers' for them), and between giving behaviours and other indicators of a prosocial outlook towards others. To test for the existence of these connections I run two (probit) regressions with giving and not giving respectively as the dependent variables and multiple circumstantial variables as their drivers. The results show that the circumstantial variables have an association with giving that is compatible with the hypothesis that pro-sociality with all its social drivers is expressed in giving (Table 6a.2).

	Probit regressions, reporting marginal effects for:			
	the top 10% givers		**the top 10% non-givers**	
	dF/dx	Robust Std. Err.	dF/dx	Robust Std. Err.
Fixed variables				
sex (1:male; 2:female)	0.0067	0.004	-0.0078**	0.004
white*	0.0139	0.008	-0.0156*	0.009
Family relationships				
Married*	0.0135***	0.005	-0.0122***	0.005
Cohabiting*	-0.0131*	0.007	-0.0058	0.005
Parent of child under 16 years*	0.0124**	0.006	-0.0263***	0.004
Household size (1 to 7+)	-0.0037*	0.002	0.0132***	0.002
Rarely spend time with kids*	-0.0256**	0.009	0.0432***	0.011
Have family can be open with*	-0.0072	0.004	-0.0062*	0.004
Lived with both biological parents@age 16*	0.0098**	0.005	-0.0070*	0.004
Neighbourhood relationships				
No social website	-0.0299***	0.005	0.0134***	0.004
Not visit friends	-0.0388***	0.007	0.0349***	0.004
Have friends can be open with*	0.0157***	0.004	-0.0199***	0.004
How often attend religious services (1-4)	0.0391***	0.002	-0.0253***	0.002
Trust in neighbours (1-5)	0.0121***	0.003	-0.0113***	0.002
Can't borrow from neighbours (1-5)	-0.0137***	0.002	0.0048***	0.002
Different from neighbours (1-5)	0.0098***	0.003	-0.0027	0.002
Rarely talk to neighbours (1-5)	-0.0089***	0.003	0.0048**	0.002
Not take own bags shopping (1-5)	-0.0053***	0.002	0.0025**	0.001
No qualification*	-0.0539***	0.004	0.0505***	0.007
University qualification*	0.0545***	0.006	-0.0394***	0.004
Physical capacity and resources for giving				
Health (1:limiting to 3:good)	0.0160***	0.004	-0.0096***	0.003
Retired*	0.0162*	0.009	-0.0260***	0.006
Working*	-0.0164**	0.007	-0.0084*	0.005
Unemployed*	-0.0375***	0.009	0.0199**	0.009
Age category, low to high (1-13)	0.0068***	0.001	-0.0010	0.001
Household income/month (1000's)	0.0045***	0.001	-0.0083***	0.001
Hard financial situation (1-5)	-0.0142***	0.002	0.0165***	0.002
Observations	19,117		19,117	
Wald chi2(27)	1705.51		1401.94	
Prob > chi2	0.0000		0.0000	
Log likelihood	-5628.73		-5039.06	
Pseudo R2	0.1543		0.1392	

(*) dF/dx is for discrete change of dummy variable from 0 to 1

Table 6a.2 The link between giving/non-giving and its social drivers

Table 6a.2 shows that people who are part of high input relational networks are more likely to be 'givers', and less likely to be 'non-givers.' First of all, family: Married people are more likely to be givers and less likely to be non-givers. The same cannot be said of cohabitees – perhaps indicating lower levels of commitment in the relationship, or different social values or stage of life which affect giving. Having children under 16 is also positively linked to giving. Although marriage and having

children are both linked to giving behaviours, there still appears to be a certain trade-off between investing within one's household and investing outside of it to other people. Controlling for the other variables, people in higher household sizes tend to give less than those of a smaller household size. Also having family one can 'open up' to is not associated with extra giving outside of that family, although it *is* associated with being less likely to be a *non-giver*; positive family ties are by no means detrimental to giving. Indeed, where people had lived with both biological parents at the age of 16 (indicative of positive family investment from both parents) they were marginally more likely to be givers. (Although this last effect is large when taken on its own, inclusion of all the other variables have a mitigating effect, suggesting that a child brought up in difficult mother-father circumstances can benefit from support in other ways). Those who have children who they rarely or never spend time with are less likely to give in other ways also.

People networked to friends they can open up to are also more likely to be givers. Similarly, connecting through the web is compatible with giving outside of it. Those who regularly attend religious services are more likely to be givers and less likely to be non-givers. Further investigation showed that it is not so much identifying with a religion, but the practicing of it that makes the difference. People who do not trust their neighbours or feel that they cannot borrow things from their neighbours or do not talk much to their neighbours are less likely to be givers and more likely to be non-givers. Positive neighbourly relationships matter. Feeling different from one's neighbours does not inhibit giving though. Those who feel themselves to be different are actually the bigger givers, perhaps because they are the type of people who are more willing to cross social boundaries or go out of their comfort zone, or perhaps because they are people who feel themselves in a favoured position and therefore bound to help the less fortunate. Whether or not you feel similar to neighbours might be correlated to giving, but it is not correlated to non-giving. Being similar to others is no hindrance to giving. Those who care for the environment and take their own bags shopping tend to give more. Their considerate attitude is reflected in multiple dimensions. People who have received high levels of education (input from others) are also more likely to give and less likely to be non-givers.

White people are less likely to be non-givers. They may be better connected to giving networks. White and non-white people are equally likely to be givers however. Likewise women are less likely to be in the non-giver category, although men and women are equally likely to be givers.

In terms of physical capacity and resources for giving, those who have more to give, give more. People of a higher age or who are retired have more time, possibly a greater resource stock, and fewer costs than those just starting out in life. They are both more likely to give and less likely to not give. Debatably, the values of the older generation may be different from the younger generation also. Working people are less likely to be givers than those outside of the job-market, but they are also less likely to be non-givers. Formal working commitments may constrain their informal giving, but that does not make them especially inconsiderate of others. The unemployed however are both less likely

to give *and* more likely to be non-givers. Both household income and one's own perception of financial wellbeing are associated with giving; being better off is associated with being more likely to be a giver and less likely to be a non-giver. The size of the coefficients reveal however that 'supportive relationships' tend to have a much greater association with giving than £1000 extra income per month. Being healthy and making contributions to others also go together.

I have established then that giving is significantly associated with a range of social drivers, mostly related to an individual's wider social environment, but also to her personal prosocial motivation. Next I review the association between giving and welfare.

6a.3 Links between giving and welfare

Welfare in this data is measured in terms of personal life-satisfaction, and trust in neighbours. Regarding life satisfaction, the question is, 'how dissatisfied or satisfied are you with life overall?' The question is asked as a summary following several questions about satisfaction in the areas of health, work, leisure time, relationships, income and accommodation. The response options are on a scale of 1 (not at all satisfied) to 7 (completely satisfied). In terms of neighbourhood trust, people were asked to rank on a scale of 1-5 their agreement to the statement that 'people in this neighbourhood can be trusted.'

Although there is some evidence that personal giving directly affects personal life-satisfaction (Aknin *et al*. 2013; Dunn *et al.* 2008), the link between giving and trust is not so straightforward. As I have outlined in previous chapters, trust depends on how the respondent perceives other people in her neighbourhood to be acting; the trustworthiness of others. Whilst it is true that you will not give if you do not trust (for the giver must trust the recipient to make good use of the gift) it was noted that trust cannot be maintained in an environment where people are acting in an untrustworthy manner (Kolm and Ythier 2006; Dasgupta 2009). Thus I have stated that prosocial action, reflected in time and money transfers, must be in play if trust (and a continuance of giving norms) is to exist over time (Section 4.1 and Section 6.2.4). Giving behaviours are not likely to directly impact that giver's trust in others. Her trust rather depends on the reciprocal response of the people she gives to. However, the individual is representative of her own personal social network and that network's giving norms, and for this reason we may expect a significant relationship between individual giving and communal trust levels.

Table 6a.3 shows a regression of trust and of life satisfaction to giving. I include as controls those life-situation variables which are non-negotiable (age, ethnicity, gender etc.). I also include circumstances that may alter over time such as job status, income, health, qualifications, marital status and having children under 16 years old. These have an independent effect on welfare as well as interacting with giving and perhaps being dependent themselves on the relational networks that tie in with giving to a certain extent.

	life satisfaction (1:low to 7:high)	trust neighbours (1:low to 5:high)
top giving decile (0,1)	0.1544***	0.1325***
	[0.027]	[0.014]
bottom giving decile (0,1)	-0.3594***	-0.2364***
	[0.038]	[0.020]
sex (1:male; 2:female)	0.0759***	0.0112
	[0.019]	[0.010]
white (0,1)	0.2637***	0.1012***
	[0.043]	[0.022]
Household income/month (1000's)	0.0228***	0.0211***
	[0.003]	[0.002]
No qualification (0,1)	0.1250***	-0.0315**
	[0.032]	[0.015]
University qualification (0,1)	0.0676***	0.1233***
	[0.021]	[0.012]
Health (1:limiting to 3:good)	0.4405***	0.0498***
	[0.020]	[0.009]
Age category, low to high (1-13)	0.0189***	0.0566***
	[0.004]	[0.002]
Unemployed (0,1)	-0.5180***	-0.2076***
	[0.052]	[0.028]
Married (0,1)	0.2517***	0.0895***
	[0.021]	[0.011]
Have children under 16yrs (0,1)	-0.2378***	-0.0197
	[0.022]	[0.013]
Observations	22,084	24,655
R-squared	0.076	0.097

Although life-satisfaction is based on only seven discrete outcomes, Ferrer-i-Carbonell and Frijters (2004) show that treating these as a continuous variable does not unduly bias the results. Similarly, where the trust response was based on five outcomes, an OLS model was used.

Robust standard errors in brackets *** p<0.01, ** p<0.05, * p<0.1

Table 6a.3 Regression of giving to welfare outcomes

It can be seen that giving or not giving had a significant association with life-satisfaction and trust. Just as was described in Chapter 6, giving behaviours compare to big social issues like unemployment, health, education and a great deal extra income per month in terms of the strength of their association with welfare.

Health had the biggest association with life satisfaction. Apart from having no qualifications (where people report greater levels of happiness than those who are qualified), variables which are positively associated with life-satisfaction are positively associated with trust also. Age (stage of life) also had an important association with trust, but it cannot be altered voluntarily.

Even if every variable included in Table 6a.2 is included in a regression to trust, both giving and not giving retain an economically important and statistically significant interaction with trust. This applies also to the inclusion of personality variables. Personality may impact giving, but there are no policy

implications since personality is a fixed effect. Including these personality variables does not affect the statistical significance and relative importance of giving behaviours however, which suggests that pro-sociality is, to a certain extent, independent of personality and there is something that may be done to change the outcomes. Based on a regression with these extra variables, we find that those variables indicative of giving/investment in a relational activity in themselves (talk to neighbours, take own bags shopping, attend religious services, visit friends, having friends and family one can be open with, spending time with kids, being married, sharing a house with others) are also significantly associated with increased levels of trust, just as the giving variables themselves. Cohabitees however are neither more likely to give nor more likely to trust. Being part of a social website (a form of relating in which actors can control what is revealed and what is not) is also not associated with trust. Even the more formalized forms of relational activity (working *versus* being unemployed) are associated with trust; working people being more trusting than those out of work.

6a.4 Giving or money as an indicator of welfare outcomes

The average gross monthly household income of those in the 'non-givers' category is £2334. For those in the givers category it is £4250 – over 80% more. So if there is such an income differentiation, do we even need a separate welfare indicator based on giving? The regressions indicate that giving behaviours retain their significance when controlling for income, meaning that they have an independent effect, and indeed, their association with trust is much greater than a £2000 income difference. So, giving levels and money availability both have their own influence on welfare outcomes, as well as interacting with each other. Table 6a.4 illustrates their relative impact further.

	highest giving decile (givers)	**lowest giving decile (non-givers)**
average trust in lowest income decile (<£868/mth)	.64	.26
average trust in highest income decile (>£6558/mth)	.80	.49

Table 6a.4 Trust outcomes depending on top and bottom income decile and top and bottom giving decile

In this table, 'average trust' refers to the proportion of people in the category responding that 'most people can be trusted' as opposed to the response, 'you can't be too careful.'

It can be seen from comparing trust in the top and bottom income decile that whilst income is correlated to trust, giving has an even bigger impact. The income differential is associated with a 16-20 percentage point increase in trust. The giving differential is associated with a 32-36 percentage point increase in trust. People who are givers in the lowest income decile still exhibit more trust than people who are non-givers in the highest income decile. In other words, a community is in better shape where its members are poor and giving than where they are rich and non-giving. The result may be biased however by the fact that that elderly people (generally the most trusting) tend to have lower incomes but greater wealth (a mortgage free house for example). However we see that whether rich or

poor, giving still has the same significance of impact. This result was borne out also by evidence from the Citizenship Survey described in in Chapter 6, which finds that giving is associated with better welfare outcomes in both the most *and* least deprived areas.

Note however that the data in Table 6a.4 is based on 63-303 observations per group (all the persons surveyed who fall into the relevant category). The fewest observations were found regarding people with high incomes who were low givers. Out of 2781 respondents in the bottom income decile responding to the relevant questions, 286 (10%) were found to be non-givers. Amongst the 2555 respondents in the top income decile, only 63 (2%) were found to be non-givers. We see again that giving and high incomes tend to go together. People with higher incomes might be able to buy their way into a more pleasant environment even if they are not investing in that social environment, yet the maintenance of such an environment long-term requires that someone is taking the lead in prosocial investments, and this often draws others in.

6a.5 Conclusion

Overall then it can be seen that although this analysis is still only descriptive, the use of a different dataset does not negate the previous chapters. Pro-sociality is associated with the pressures and incentives afforded by the wider social environment as well as with personal prosocial inclination. This pro-sociality is measurable in giving flows and is associated with preferable welfare outcomes. Since the Understanding Society data is still in its early years, it is not possible to track how giving, trust and life-satisfaction change over time, and thus to draw firm conclusions about causality. Understanding Society follows on from the British Household Panel Survey (BHPS) however, and since here the same person is followed over time, we can see if giving in one time period has any significant impact on the way welfare develops beyond that time period. This is the subject of Chapter 7.

Appendix 6a Understanding Society Variables

The survey results are all based on wave 1. Sometimes questions asked only in later years were imputed to wave 1. Some of the variables were reverse coded or recoded as presented in this appendix.

Variables indicating welfare outcomes	Survey code	Values (original or derived from the code(s) shown)	Response distribution (%)	Observations in wave 1 or imputed to wave 1 and notes
Satisfaction with life overall	sclfsato	completely dissatisfied	2.50	35,094 obs.
		mostly dissatisfied	4.22	
		somewhat dissatisfied	6.97	
		neither satisfied or dissatisfied	9.32	
		somewhat satisfied	17.21	
		mostly satisfied	45.43	
		completely satisfied	14.36	
People in this neighbourhood can be trusted	nbrcoh3	strongly disagree (no trust)	1.57	27,519 obs. question only asked in wave 3 and imputed to the relevant respondents in wave 1
		disagree	7.03	
		neither agree nor disagree	24.48	
		agree	56.70	
		strongly agree (trust)	10.22	
Trustworthiness of others	sctrust	0=can't be too careful	54.03	27,318 obs. (excludes 'depends')
		1=most people can be trusted	45.97	

Variables indicative of giving	Survey code	Values (original or derived from the code(s) shown)	Response distribution (%)	Notes
Give £10 or more to charity in the last 12 months	charam	1=gave less than £10 2=gave £10 or more	6.73 93.27	20,761 obs. (only applies to those who give money to charity)
Gave more than £5 to charity in the last 12 months	charam	1=gave £5 or less 2=gave more than £5	6.18 93.82	20,761 obs. (only applies to those who give money to charity)
Donated money to charity/other organisations in last 12 months	chargv	1=yes 2=no	69.20 30.80	31,864 obs. For info. on prevalence of giving
Volunteer in last 12 months	volun	1=yes 2=no	18.70 81.30	31,881 obs.
Had family or friends around for a drink or meal in the last month	matdepb	1=yes, I/we have this 2=no, I/we do not want/need this or can't afford it	63.83 36.17	42,892 obs.
Member of an organisation	org	1=yes 2=no	55.03 44.97	27,523 obs.
Active in an organisation	orga1 to orga16	0=activity 'not mentioned' in any group or organisation 1=activity mentioned in at least one group or organisation	53.43 46.57	27,522 obs.
Giver	see detail below*	0=all others 1=giver	89.61 10.39	25,259 obs. Taken together, the dummy variables compare the top and bottom decile of the population in terms of giving to the remaining 80.07% of the population answering the relevant questions.
Non-giver	see detail below*	0=all others 1=non-giver	89.89 10.11	

Apart from matdepb, all these questions were only asked in wave3. The wave3 responses were therefore imputed, where possible, to the same respondent in wave1. After this, only persons answering the questions in wave 1 were considered.

*Variables based on people responding to the above questions on volunteering, activity in organisations, membership of organizations, and their open home to friends and family. Only respondents in wave 1 (with values imputed from wave 3 where possible) were considered.
People were classed as 'non-givers' if volun==2 & matdepb==2 & orga1 to orga16==0 & the question regarding membership of an organization was answered and wave==1. They were excluded from this category and returned to the general pool if they were wave 1 respondents to the relevant questions who had given more than £5 to charity in the last 12 months.
People were classed as 'givers' if volun==1 & matdepb==1 & (org==1 OR one of the orga* questions==1) & the respondent gave at least £10 to charity in the last year & wave==1.

Control Variables	Survey code	Values (original or derived from the code(s) shown)	Response distrib. (%)	Notes
Gross household income in the month before interview	fihhmngrs_dv	income at 10th percentile: £ 868 income at 25th percentile: £1489 income at 50th percentile: £2633 income at 75th percentile: £4324 income at 90th percentile: £6558	43,674 obs. 27,270 unique values. range: -12,300 to 20,000 mean: £3334 std. dev: £2783	
Subjective financial situation - current	finnow	1=living comfortably 2=doing alright 3=just about getting y 4=finding it quite difficult 5=finding it very difficult	27.61 32.61 27.15 8.56 4.07	40,920 obs.
White	racel	0=non-white 1=white	8.99 91.01	41,004 obs.
Health limits typical activities	sf2a	1=yes, limited a lot 2=yes, limited a little 3=no, not limited at all	8.75 11.47 79.78	41,993 obs.
Age group: 13 categories	agegr13_dv	16-17 years old 18-19 years old 20-24 years old 25-29 years old 30-34 years old 35-39 years old 40-44 years old 45-49 years old 50-54 years old 55-59 years old 60-64 years old 65 years or older	3.33 2.86 6.90 7.73 7.89 9.07 9.67 9.27 8.27 7.50 8.11 19.41	43,674 obs.
Unemployed	jbstat	0=all other status 1=unemployed	94.12 5.88	43,664 obs. If used together these dummy variables compare to working age people outside of the job market: 17.82%
Work (employed or self-employed)	jbstat	0=all other status 1=work	45.73 54.27	
Retired	jbstat	0=all other status 1=retired	77.97 22.03	
No qualifications	hiqual	0=all other status 1=no qualification	82.35 17.65	43,609 obs.
University qualifications	hiqual	0=all other status 1=university qualification	79.63 20.37	43,609 obs.
Environmental habits: takes own bags shopping	envhabit7	always very often quite often not very often never	45.72 16.43 11.99 9.24 16.63	39,534 obs.
Belong to social website	socweb	1=yes 2=no	42.95 57.05	27,761 obs.
Number of people in household	hhsize	single person household 2 person household 3 person household 4 person household 5 person household 6 person household 7 or more person household	16.60 36.75 18.39 17.61 7.30 2.22 1.14	41,047 obs.

Married	mastat_dv	0=not married	49.23	43,661 obs.
		1=married and living with partner	50.77	
Lives with cohabitee in household	cohab_dv	0=no cohabitee	87.66	43,674 obs.
		1=cohabiting	12.34	
Parent of children aged under 16	nchunder16	0=no	72.15	41,047
		1=yes	27.85	
Have children that you rarely spend leisure time with	socialkid	0=no kids or spend time with kids	94.96	40,991 obs.
		1=have kids but spend leisure time with them less than once a month	5.04	
Frequency of attendance at religious services	oprlg2	never/practically never or only at weddings, funerals etc.	65.47	41,007 obs.
		at least once a year	15.20	
		at least once a month	6.79	
		once a week or more	12.55	
Christian	oprlg1	0=no	60.90	41,040 obs. These dummies compare to no religion (51.31%)
		1=yes	39.10	
Other religion		0=no	90.41	
		1=yes	9.59	
Talk regularly to neighbours	scopngbhh	strongly agree (talk)	20.38	34,903 obs.
		agree	48.71	
		neither agree nor disagree	18.05	
		disagree	9.72	
		strongly disagree (do not talk)	3.14	
Have friends you can open up to if need to talk	screndany scfopenup	0=no friends or friends you can't open up to	30.97	28,016 obs.
		1=friends you can open up to a lot or somewhat	69.03	
Have family you can open up to if need to talk	screlany scropenup	0=no family or family you can't open up to	31.32	27.966 obs.
		1=family you can open up to a lot or somewhat	68.68	
Can borrow things from neighbours	scopngbhd	strongly agree	11.02	34,527 obs.
		agree	35.25	
		neither agree nor disagree	20.66	
		disagree	22.68	
		strongly disagree	10.39	
Am similar to others in neighbourhood	scopngbhg	strongly agree	14.14	34,784 obs.
		agree	46.08	
		neither agree nor disagree	26.02	
		disagree	9.58	
		strongly disagree	4.18	
Go out socially or visit friends	visfrnds	1=yes	85.81	27,750 obs.
		2=no	14.19	
Lived with both biological parents at age 16	lvag16	0=no	23.40	41,015 obs.
		1=yes	76.60	

Chapter 7. **Causality: Prosocial motivation, expressed in giving, produces a healthier social environment**

7.1 Introduction

This chapter tests whether the prosocial motivation of the individual, expressed in giving flows, influences a person's wider social environment. In answering this question I test the final linkage of my proposed model of Fig.3.4, demonstrating how the social environment changes over time. The model suggests that conditions within the wider social environment affect individual prosocial motivation. This prosocial motivation is expressed in prosocial behaviours (a representative of which is giving, which has the advantage of being measurable). The prosocial behaviours feed back into the quality of the wider social environment. Thus the drivers of prosocial behaviours like giving positively or negatively reinforce one another over time to the improvement or detriment of social cohesion with its associated quality of life benefits.

In Chapter 4 we saw that prosocial motivations and the state of the wider social environment were indeed separate and significant drivers of giving. With respect to their interaction, in Chapter 5 we confirmed that alterations to the social environment (how connected strangers were made to feel towards one another) influenced the motivation of individuals to give. Now in this chapter I consider how this inclination to give feeds back to the health of the wider social environment. Chapters 6 and 6a demonstrated the *existence* of linkages between giving and welfare, and discussed what kind of 'giving' was most closely associated with welfare in the UK. Now I test whether giving behaviours have the power to actually *change* the social environment or whether giving is merely a product of a favourable social environment. The use of time lags help to demonstrate whether or not there are dynamic aspects to the model, but it does not solve the issue of confounding effects (a spurious relationship). This issue was addressed earlier in Chapter 5.

For this analysis I use the British Household Panel Survey (BHPS) which is available from the UK data archive. First I consider the links between giving behaviours and welfare, testing whether 'giving' people (representative of giving networks) are better off than 'non-giving' people (representative of non-giving networks). This test replicates data shown in Chapters 6 and 6a, but with a new dataset. Secondly, in order to address the question of causality, I test how giving affects the way in which the welfare of the same person changes over time.

7.2 Data and methods

The BHPS records the socio-economic data of a representative sample of the British population. It is an unbalanced panel of 18 time periods covering 1991-2008 inclusive. The same adults of each

selected household were interviewed face-to-face where possible in each wave. The sub-dataset used comprised only adults who, in a particular wave, had household data available as well as answering the full individual survey for that wave. This gave over 10,000 useable respondents per wave. Most of the variables relevant to this study were concentrated in the portion of the dataset from 1997-2008 (waves F to R), and so all previous variables were excluded. Wave 2008 was also excluded as I try to avoid the potentially complicating impact of the financial crash. In assessing changes to life-satisfaction and liking for one's neighbourhood I was even able to exclude the year 2007 for the same reason. Access to information on all variables and the waves in which the questions were repeated is available online (BHPS documentation n.d.). A description of the particular variables used in this chapter is available in Appendix 7A.

I measure welfare in terms of life-satisfaction; see Clark *et al*. 2008 for justification of how life-satisfaction measures represent welfare. I also consider measures of welfare that are particularly dependent on the perceived neighbourliness of *other* people; measures which include trust in neighbours, whether or not a person likes their neighbourhood, the respondent's perception of crime in the local area and the respondent's fear of walking alone at night. The latter variable has only a 0.17 correlation with the individual's reported perception of crime, and is likely therefore to be related also to a sense of vulnerability in general. Together these variables give us a broad picture of a person's welfare in the context of the community in which they live. Beyond this I consider how giving impacts incomes, wealth (seen in house ownership), unemployment, health issues, education and care hours given. These are all variables instrumental to welfare and yet are used as controls. If giving behaviours also interact with these *instruments* in ways conducive to welfare, then the overall impact of giving on welfare will be bigger than it first appears.

Note that the giving behaviours included cover informal giving within one's own close friendship group (hosting visitors in your own home) and also giving towards people who one is unlikely to meet except through the mediation of a formal group (volunteering). This represents giving within social boundaries and giving across social boundaries, both of which relational linkages could be important aspects of a healthy civic sector. Close ties may be supportive and empowering within one's micro environment when characterized by giving behaviours, but the addition of connections that bridge social boundaries are expected to channel opportunities from one segment of society to another (Grant 2001; Krishna 2002; Grootaert and Van Bastelaer 2002). Both kind of relational tie might also be restrictive or extractive, but since I am identifying these ties through the prism of a prosocial manifestation (giving), it is more likely that I am observing how they fulfil their more positive functions, empowering individuals and mitigating the fragmentation of society. In including both forms of giving in my analysis, I am able to determine the significance of their specific contribution to welfare. The forms of giving selected also reflect individual agency in that they are not heavily

constrained by social dictates. Giving to dependents for example may also represent a civic sector resource transfer, but the transfer is obliged by law and social custom to a much greater extent.

My regressions principally examine the interaction between giving behaviours and welfare, but since this interaction may be due to omitted variables, it is necessary to control for other standard demographics. These include fixed effects: gender, colour, age and personality. Also variable demographics including marital status, responsibility for children under 16 years of age, whether a person is in paid work and religious identification. Finally I add controls for the variables that are often used as indicators of development in themselves: income, wealth (house ownership), education, unemployment and health. I also include in this category the burden of unpaid care hours provided, since this also influences to welfare. OLS, ordered logit or probit models are used as appropriate for interpretation in terms of the sign and significance of the coefficients. Within each regression it is also of interest to compare the size of the coefficients across the different drivers. These provide some indication of how important 'giving' is compared to other influences on welfare.

Even should I find a positive association between giving and welfare, and even if that association is not spurious, there remains the question of causality. Does an enriched living environment stimulate people to start interacting more positively with others, or does an individual willingness to put time and money into the lives of others actually contribute to an enriched living environment?

To answer this question I trace the effect that giving in one time period has on welfare in the next. Although a positive environment is likely to reinforce a willingness to give, and although giving may provide some benefit for others, I can see from this step whether a willingness to give ends up having an impact also on the welfare of the giver him/herself. This will not be an instantaneous result of giving, but feeds back through the reciprocal response of others in the wider social environment: An individual is partly responsive to the relational environment, but can also choose to act for the good or bad of others independently of the social environment (Chapter 4). This choice affects the social environment of others. Whether or not those 'others' go on to respond in a prosocial manner then affects the social environment of the original individual, and so a cycle is formed (see Figs.3.3 and 3.4 at the end of Chapter 3). The giver, having contributed to an enriched social environment, may eventually receive something back from someone within that environment of benefit to him or herself. So where giving is carried out in the context of a giving *network*, then all parties may eventually benefit, even if not from the same person originally given to (Kolm and Ythier 2006; Dasgupta 2009).

The time lags in the model make the analysis meaningful. In Section 7.4 then, I look at how each dependent welfare variable changes for an individual over a 10 year period. If the social environment is enriched by giving to the eventual benefit of the giver, then we may expect giving to improve the social environment of the giver over time. The obvious choice for testing the cumulative effect of giving on welfare over this period would be a distributive lag model, in which different lag

specifications are tried. However the nature of the data rather constrains me to splitting the time period into two five year blocks. This is because not all the giving and welfare variables are measured in the same year, and also because my giving variable compares people who *always* give to people who *never* give; something I can only determine from giving levels which are averaged over a period of time.

I wish to consider whether giving impacts the way that welfare changes over the ten year period. My model, prior to robustness checks, is illustrated diagrammatically in Fig.7.1. Note that all drivers in the second period are excluded, since I wish to assert the direction of causality, not the existence of correlations. Since the independent variables are all coming first in time, we may conclude that the independent variables are driving the welfare outcome; it would be difficult to argue that causality is the other way around. The independent variables of my model include the welfare status and the status of all controls in the opening year of the study. Even if some of these variables are influenced by giving behaviours, they can be considered to be exogenous since they are pre-determined at the date of entry into the study. Added to these I consider the flow of giving: giving levels averaged over years 0-5. Giving behaviours will depend partly on how people have been treated prior to and at point of entry into the experiment as indicated by the dashed arrows. Finally I include variables for how each of the controls have changed in years 0-5. Again indicated by the dashed arrows, some of these changes will have been influenced as a result of giving. Note many variables were only measured every other year, not all in the same period, hence the start and finish points of each time period may differ by a year.

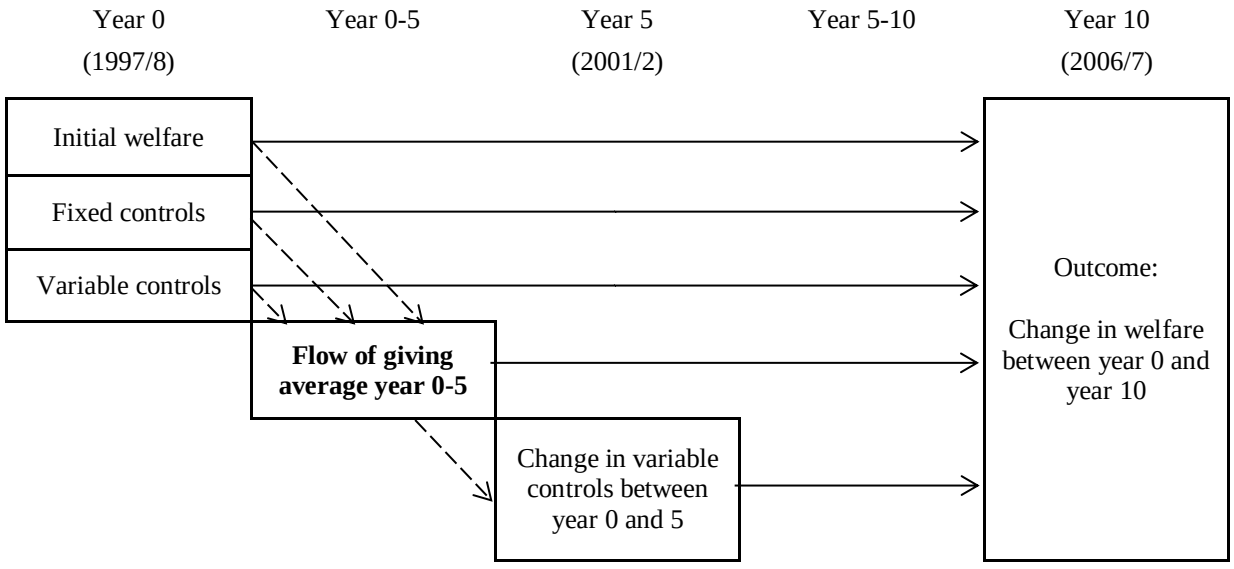


Fig.7.1 Drivers of welfare

I use individual level data despite the communal repercussions of giving because it avoids having to make contestable decisions regarding the geographical boundaries of 'community.' The people each individual gives to tells us something about the extent of their own personal community connections,

their interactions with others having some small impact on their social environment and the treatment that they are likely to experience in a later time period.

Having said that, giving *is* of benefit to someone *other* than the giver, and in the light of externalities it is also interesting to consider the association between the giving norms of a region and that regions welfare. In Section 7.5 I consider the percentage of persons in a community who always give/never give, and compare this regional involvement in giving to the average trust levels, crime levels, income levels etc. of that region. The approach offers additional insight into how giving norms affect the welfare of persons *other* than the giver. Aggregated measures may be useful to decision-makers who wish to compare the prosocial character of the civic sector in different neighbourhoods and regions.

Firstly I compare whether giving people are better off than non-giving people. Secondly, to study causality, I compare how welfare outcomes change over time for the same person, dependent on whether they were giving people or not. The model allows us to determine whether a 'giving-welfare' interaction depends on pre-existent welfare and/or whether giving behaviours actually contribute to *producing* that welfare.

The fact that I used quality assured secondary data in this chapter has advantages in terms of its scope, its ready availability, its representative nature and the reduced bias in the way questions might have been phrased. This adds to the credibility of the findings. However, not every question of interest was available in this survey. We had no data on monetary giving or on actual crime data for example. To some extent this problem was mitigated by seeking evidence of similar associations between giving and welfare using other datasets with differing variables. The results, described in Chapters 6 and 6a, were complementary, although the analysis was less rigorous. In this chapter we consider how welfare *changes over time* in the presence or absence of giving behaviours, which provides a little more indication of causality; welfare changes *follow* the giving behaviour. However time lags are not enough to prove causality, since the analysis cannot fully address the issue of confounding effects. It could be that an omitted variable is the reason for the association between giving and welfare, and our analysis of this chapter alone has not addressed this possibility. Although this problem is not addressed in this chapter, the lab experiment of Chapter 5 is able to complement our findings, providing some evidence that the associations between giving and welfare were not spurious.

7.3 The welfare outcomes of giving people relative to non-giving people

Table 7.1 shows how giving and the control variables, averaged over the first time period, interact with welfare averaged over the same period (note that data was not available for all the variables in exactly the same time period). We see that in every case where the variables are significant, high level giving behaviours are associated with increased welfare, and the absence of giving with decreased

welfare. In other words, people who made prosocial investments into other people or into relational activities clearly experienced better outcomes than people who did not.

Between effects	Average life-satisfaction 1997-2000 (37 values)	Average trust 1998 and 2000 (5 values)	Average 'like neighbour-hood' 1997-2001 (11 values)	Average perception of local crime 1997 and 2002 (350 values)	Average fear of walking alone at night 1997 and 2002 (7 values)
Giving variables: average giving over period 1997 to 2001/2					
Volunteer regularly	0.0378	0.1511***	-0.0127	0.0275	-0.0976***
(15% sample)	[0.038]	[0.036]	[0.008]	[0.021]	[0.033]
Never volunteer	0.0057	-0.0824***	-0.0156***	0.0014	0.0675***
(67% sample)	[0.028]	[0.027]	[0.006]	[0.016]	[0.024]
Always active in organisations	0.0798***	0.0473*	0.008	0.0016	-0.0423*
(29% sample)	[0.028]	[0.028]	[0.006]	[0.016]	[0.024]
Never active in organisations	-0.0821***	-0.0889***	-0.0149**	0.0097	0.0146
(37% sample)	[0.031]	[0.026]	[0.007]	[0.017]	[0.025]
Always host visitors	0.1776***	0.0235	0.0207***	-0.0434***	-0.0357*
(52% sample)	[0.025]	[0.023]	[0.005]	[0.014]	[0.021]
Never host visitors	-0.2336***	0.0109	-0.008	0.0735**	0.0468
(10% sample)	[0.067]	[0.048]	[0.015]	[0.035]	[0.050]
Fixed controls					
Female	0.0862***	0.0048	0.0003	0.0276	0.7414***
(dummy)	[0.030]	[0.027]	[0.006]	[0.017]	[0.025]
White	0.2452***	0.1586***	0.0055	-0.1399***	-0.1567***
(dummy)	[0.081]	[0.059]	[0.016]	[0.040]	[0.059]
Age bracket in 1997	0.0222**	0.0797***	0.0095***	-0.0388***	0.0628***
(7 categories)	[0.011]	[0.010]	[0.002]	[0.006]	[0.009]
15 personality variables also included to control for fixed effects					
Variable controls averaged over period 1997-2001					
Married	0.0658***	0.0373***	0.0031	-0.0277***	-0.0244*
(1:no; 2:part of period; 3:yes	[0.016]	[0.013]	[0.003]	[0.008]	[0.013]
Responsible for a child<16 yrs	-0.1148***	-0.0424**	-0.0055	-0.007	-0.017
(1:no; 2:part of period; 3:yes)	[0.020]	[0.017]	[0.004]	[0.011]	[0.017]
In paid work	-0.1440***	0.0425**	0.0028	0.0263**	-0.1097***
(1:no; 2:part of period; 3:yes)	[0.020]	[0.019]	[0.004]	[0.012]	[0.018]
No religion (1:religious;	-0.0483*	-0.0086	0.0042	-0.017	-0.0985***
2:part of period; 3:none)	[0.029]	[0.026]	[0.006]	[0.016]	[0.023]
Controls that are themselves indicative of welfare averaged over period 1997-2001					
University education by 2001	-0.0242	0.3280***	0.0128**	-0.0709***	-0.1114***
(dummy)	[0.034]	[0.034]	[0.006]	[0.018]	[0.028]
No qualifications by 2001	0.1422***	-0.1874***	-0.0155*	0.1096***	0.0872***
(dummy)	[0.035]	[0.029]	[0.008]	[0.019]	[0.029]
Annual household income	0.0209***	0.0340***	0.0045***	-0.0100**	-0.0177**
(units of 10K)	[0.007]	[0.007]	[0.001]	[0.004]	[0.008]
Wealth: own or mortgage house	0.0276	0.0259*	0.0240***	-0.0829***	-0.0426***
(1:no; 2:part of period; 3:yes)	[0.019]	[0.015]	[0.004]	[0.011]	[0.016]
Unemployed	-0.0825***	-0.0688**	-0.0105	0.0118	0.0285
(1:no; 2:part of period; 3:yes)	[0.031]	[0.030]	[0.007]	[0.018]	[0.026]
Poor health limiting	-0.2965***	-0.0913***	-0.0211*	0.0471**	-0.1183***
(1:no; 2:part of period; 3:yes)	[0.046]	[0.033]	[0.011]	[0.024]	[0.034]

Hours per week spent caring (3 categories)	-0.4989*** [0.027]	-0.0944*** [0.020]	-0.0197*** [0.006]	0.0636*** [0.014]	0.0866*** [0.021]
Observations (n)	5,535	5,523	5,536	5,535	5,533
R-squared	0.263	0.153	0.063	0.096	0.336
F (36, n-37)	47.00	34.05	7.88	14.45	85.29
Prob>F	0.0000	0.0000	0.0000	0.0000	0.0000

Robust standard errors in brackets *** p<0.01, ** p<0.05, * p<0.1

- Note also that the variable 'responsible for child < 16 years' refers less to the existence of children, and more to one's sense of responsibility (care) towards them (see description of variables, Appendix 7A).

Table 7.1 Between effects: People who gave more tended to be better off than people who gave less

Hosting visitors is indicative of close relational ties and had a powerful positive association with life satisfaction; an association exceeded only by variables related to poor health. It also has one of the biggest associations with whether people liked their neighbourhood, following wealth (home ownership) and poor health status. It had a lesser, but still significant impact on crime-perception and fear of walking alone after dark; people with close relational ties felt less vulnerable in both ways.

Participation (or not) in groups and volunteering are both indicative of positive connections to a wider social circle. All welfare variables except crime-perception are significantly associated with these behaviours, and always in ways advantageous to welfare. Participation in broad giving networks is often found to be comparable in importance to the influence of big social factors of influence on welfare: gender, race, incomes, education, employment and health. In all cases the association between giving and welfare far exceeds the association between £10,000 extra household income in a year and welfare.

Marriage, like hosting visitors, is associated with improved welfare outcomes: both represent a close relational tie that has the potential to be mutually beneficial. We see however that care for dependents is not associated with wellbeing where significant, especially where the care is directed towards a sick or handicapped person. Despite the fact that the relationships are close, the benefits flow mainly *from* the giver. Becchetti *et al*. (2013) affirm that caring for the sick drains the carer for a cause that both carer and cared for would prefer to avoid. This is not to conclude that caring roles should be avoided because they are not associated with welfare benefits for the carer. Since needs exist, care is an essential gift. Rather, the findings highlight the need to replenish and provide for care-givers because of the services they render the community at personal cost.

It can be noted that the other control variables, where significant, interact with welfare in expected ways, lending credibility to the model overall. Women feel particularly vulnerable to walking alone after dark, and they report higher levels of life-satisfaction than men. White people are generally better-off. Pensioners might be more afraid of walking alone at night, but in other ways (having netted out ill-health separately) their progression through life leaves them better-off in life. Religion is closely associated with giving behaviours (English and Ray 2011; Bauer *et al*. 2012), but having

netted out the giving aspect, we see that those declaring themselves without religion tend to be less afraid of walking alone after dark and slightly less satisfied with life. As usual in life-satisfaction surveys, qualifications are associated with lower levels of life-satisfaction but with improved welfare in all other ways. Higher incomes and wealth go with better welfare outcomes of other types. Paid work goes with higher trust levels and lessened fear of walking alone at night, but not with improved life-satisfaction or reduced crime-perception. Being unemployed is negatively associated with life-satisfaction and trust. Poor health is negatively associated with all types of welfare.

The R-squared statistic shows that the models explain only a small proportion of the variation in the dependent welfare variable. Welfare (and the latter forms in particular) depends not only on how people behave towards others (reflected in the giving variables) and on their personal circumstances (picked up in the controls); welfare also depends on the prosocial or antisocial behaviour of the people they are surrounded by, and on the wider circumstances of the area like proximity to facilities, the pleasantness and beauty of the area, and the effectiveness of crime controls etc. These variables cannot be controlled for using this data, but unless one of these omitted variables is explaining the whole of the association between giving and welfare, it *is* possible to test the hypothesis that prosocial behaviours, a proxy for which is provided in giving, has a significant association with a more desirable living environment.

A note on crime-perception: Respondent perceptions regarding graffiti, vandalism, teenagers hanging about, drunks/tramps on the street, racial insults/attacks, homes broken into, cars stolen or broken in to, and people being attacked on the street were recorded. Their average response across all these variables was then calculated as their 'crime-perception' variable. This crime perception may not reflect *actual* crime however. It was possible to observe the correlation between giving and *actual* crime by local area using a different data-set, the Citizenship survey of England and Wales (see Chapter 6). Here it was found that giving within and outside of one's close social circle were both associated with significantly less crime. Whether crime fears are justified or not however, perceptions negatively impact wellbeing and are useful variables to consider.

Since we are considering giving behaviours it would also be of interest to look at whether people donated to charity. Unfortunately this data is not available in the BHPS, although it was seen in the Citizenship data of England and Wales that monetary giving was significantly correlated to higher welfare levels of all types. Despite the fact that neither monetary giving nor real crime and deprivation data are available in the BHPS, the BHPS is used because it follows the same person over time and in Section 7.4, I consider causality by examining how giving and other variables feed through to differences in welfare outcomes over time. One more correlation of interest first however:

To test if changes in individual giving were associated with changes in life-satisfaction, I made a giving variable comprising whether or not people fed visitors in the last month *and* whether or not

they were member of an organisation. These two measures were the most straightforward to combine since the questions were asked in the same years, and they have the advantage of representing giving both within ones close family and friendship circle *and* outside of it. The giving variable had three categories:

1= entertained no visitors and participated in no organisation
2=either entertained visitors or participated in an organisation, but not both
3=entertained visitors AND participated in an organisation

It was possible to observe how giving habits changed. People had the option, comparing the year 1997 to the year 2007, to change their giving habits positively from less giving to more giving by 1 category or by 2 categories, or negatively from more giving to less giving by 1 or by 2 categories, or else to score zero; no change. 5,468 observations showed that for 53% of the sample, giving levels stayed the same. 24% gave less, 23% gave more.

In terms of life satisfaction on a scale of 1-7, respondents had the option comparing the year 1997 to 2007, to move up or down that scale. Out of 5391 observations, 40% had the same levels of satisfaction, 31.5% expressed less satisfaction, and 28.5% expressed more satisfaction.

As illustrated in Fig.7.2, there was a 0.11 correlation between a change in giving and a change in life satisfaction. An increase in giving was associated with an increase in life satisfaction. (The figure shows only the trend line, since observations were scattered in almost every possible variation.) The trend line is based on 5306 observations and is significant at a 99% confidence interval.

Fig.7.2 Changes in giving are positively correlated to changes in life-satisfaction

A similar analysis of changes in giving behaviour to changes to trust outcomes did not consistently show a statistically significant relationship however. This is hardly surprising since trust is a much

more community dependent variable, so a change in one individual's behaviour, unless correlating exactly with a simultaneous shift in everyone else's behaviour in the community, is unlikely to have an immediate effect on community outcomes.

This analysis along with the former regressions reveal an important association between giving and welfare, but they do not tell us whether the best-off people give, or whether giving brings about better outcomes for society. Causality is addressed in Section 7.4. Here we see how, in light of giving behaviours, welfare changes for the same person over time.

7.4 Welfare outcomes in one period compared to welfare 10 years later, as influenced by giving

The regressions in Table 7.2 examine which variables are associated with a *change* in an individual's welfare outcome over a 10 year period; 1997/8 to 2006/7. I examine the influence of giving and other controls in the period 1997 to 2001/2: that is, 5 years *previous* to the final measure of welfare. Any significant association with behaviour variables 5 years previously would suggest that those behaviours are impacting the way in which an individual's own personal welfare outcomes eventually change.

Factors influencing welfare outcomes	Change life satisfaction over the period 1997-2006	Change in trust vs. 'can't be too careful' 1998-2007	Change in likes vs. dislikes neighbourhood 1997-2006	Change in crime perception 1997-2007 (positive means more crime)	Change in fear of walking alone at night 1997-2007 (positive means more fear)
Giving variables average 1997-2001					
volunteer	0.0301	0.0752***	0.1920*	0.0009	-0.0705***
(never; irregular; regular)	[0.021]	[0.018]	[0.100]	[0.010]	[0.017]
active in organisations	0.0081	0.0407**	0.2065**	0.0189*	-0.0297*
(never; irregular; regular)	[0.022]	[0.018]	[0.098]	[0.011]	[0.018]
host visitors	0.0932***	0.0640***	0.3586***	-0.0317**	-0.0352*
(never; irregular; regular)	[0.027]	[0.022]	[0.107]	[0.013]	[0.021]
Dependent variable	-0.6921***	-0.6021***	-24.4901***	-0.6369***	-0.6461***
baseline status	[0.016]	[0.014]	[1.139]	[0.015]	[0.015]
Fixed controls					
female	0.1111***	-0.0292	0.2974*	-0.022	0.3625***
(dummy)	[0.037]	[0.031]	[0.162]	[0.018]	[0.034]
white	-0.0052	0.0757	0.2915	-0.0469	-0.1872**
(dummy)	[0.095]	[0.069]	[0.361]	[0.050]	[0.077]
age	0.0483***	0.0185	-0.0998	-0.0287***	0.1185***
(7 categories)	[0.014]	[0.011]	[0.061]	[0.007]	[0.011]
15 personality variables also included to control for fixed affects					
Controls in 1997					
married	0.0193	-0.0132	-0.0251	0.02	-0.0721**
(dummy)	[0.038]	[0.030]	[0.161]	[0.018]	[0.030]
responsible for child<16yrs	-0.1350***	-0.0468	-0.3449*	0.0602**	-0.1221***
(dummy)	[0.051]	[0.040]	[0.206]	[0.025]	[0.042]
in paid work	-0.0648	0.0222	-0.2331	0.0390*	-0.1919***
(dummy)	[0.045]	[0.037]	[0.186]	[0.023]	[0.039]

No religion	-0.0505	-0.0098	-0.1033	-0.0029	-0.0456
(1:no; 2:part period; 3:yes)	[0.036]	[0.030]	[0.162]	[0.017]	[0.029]
Controls in 1997 that are in themselves indicative of welfare/instrumental to welfare					
University qualification	0.0616	0.2211***	0.0155	-0.0825***	-0.1154***
(dummy)	[0.046]	[0.041]	[0.257]	[0.021]	[0.037]
no qualifications	0.0267	-0.2187***	-0.1028	0.0348*	0.0395
(dummy)	[0.043]	[0.034]	[0.168]	[0.021]	[0.035]
annual household income	0.0202**	0.0296***	0.092	-0.008	-0.0291***
(in units of £10K)	[0.010]	[0.009]	[0.063]	[0.005]	[0.008]
wealth: own or mortgage	0.032	0.0737**	0.6412***	-0.1153***	-0.0117
house (dummy)	[0.047]	[0.034]	[0.169]	[0.024]	[0.037]
unemployed	-0.2529	-0.2751***	-1.0580**	0.0507	-0.1616
(dummy)	[0.159]	[0.099]	[0.446]	[0.078]	[0.123]
ill health limits activities	-0.4418***	-0.0112	-0.4590**	0.0376	0.1632***
(dummy)	[0.067]	[0.043]	[0.211]	[0.030]	[0.048]
hours spent caring	-0.1212***	-0.0503*	0.1742	0.0505**	0.0317
(none, <20hrs, >20hrs)	[0.043]	[0.029]	[0.144]	[0.021]	[0.033]
change in controls 1997-2001					
got married	0.0332	-0.0428	0.3178	-0.0095	0.0153
	[0.054]	[0.043]	[0.198]	[0.025]	[0.041]
got responsible for child	-0.1073*	-0.0555	-0.5198*	0.0206	0.0494
	[0.064]	[0.053]	[0.282]	[0.031]	[0.054]
got work	-0.0229	0.0007	-0.0715	0.0018	-0.1660***
	[0.050]	[0.039]	[0.209]	[0.024]	[0.040]
lost religion	-0.0011	-0.0447	-0.1178	-0.0053	0
	[0.041]	[0.033]	[0.173]	[0.020]	[0.033]
change in welfare controls 1997-2001					
got uni qual	0.1711**	0.0733	0.6755	-0.1235***	0.1533*
	[0.085]	[0.094]	[0.716]	[0.045]	[0.087]
remained unqualified	0.0048	-0.3178	0.8202	-0.106	0.1573
	[0.218]	[0.200]	[0.715]	[0.094]	[0.171]
income increase £10K	0.0063	0.0096*	0.0927*	-0.0052	-0.0096*
	[0.008]	[0.006]	[0.050]	[0.003]	[0.005]
got own house	-0.0077	0.0772*	0.0389	-0.1046***	-0.1233***
	[0.058]	[0.046]	[0.245]	[0.031]	[0.045]
got unemployed	-0.1128	-0.1893**	-0.3669	0.0699	-0.1322
	[0.137]	[0.086]	[0.437]	[0.065]	[0.106]
got ill	-0.3260***	-0.0031	-0.4254**	0.0274	0.1353***
	[0.057]	[0.040]	[0.188]	[0.026]	[0.044]
increase in care hours	-0.1137***	-0.0295	-0.2357*	0.0407**	0.0242
	[0.039]	[0.028]	[0.135]	[0.018]	[0.031]
Observations	4,963	4,759	5,045	4,857	4,831
R^2 /Pseudo R^2	46.05	0.312	0.505	0.353	0.338
F (44, n-45)	43.36	41.39		44.31	45.27
Prob>F	0.0000	0.0000		0.0000	0.0000
Impact of personality on R^2	0.038	0.003	0.014	0.005	0.003

Robust standard errors in brackets *** p<0.01, ** p<0.05, * p<0.1

Note that the 'age' and 'income' variables both represent a range of categories which, for the sake of space, are presented as shown. However I also re-ran the regressions with these variables divided up into separate categories for a more nuanced analysis, which I refer to in the written description of this data.

Table 7.2 Factors influencing welfare outcomes

First of all we see that hosting visitors (indicative of close relational ties) and being active in organisations or volunteering (indicative of positive engagement with a wider social circle) both have a significant association with the way that most forms of welfare change over time. Indeed, hosting

visitors has a positive association with *every* form of welfare, distinguishing it from every other variable in the entire analysis. Except in the case of crime perception when involved in organisation (also our outlier in Table 7.1), high level givers see positive changes in the various forms of welfare whilst low level givers see negative changes in those various forms of welfare. Life-satisfaction is only associated with close ties, whilst trust, liking for one's community and fear of walking alone at night are associated with both close and wider ties. With the outlier, crime-perception, we see that although close giving ties are associated with lower levels of crime perception, involvement in groups is actually associated with an increase in crime-perception. This result will be discussed further as we review the results section by section. The size of the giving coefficients, relative to the importance of other influences on wellbeing, suggests that being a part of giving networks is not only statistically significant, but also economically significant.

7.4.1 Assessment of how giving is associated with changes to welfare

Increasing life-satisfaction: hosting visitors (close relational ties) is associated with significant improvements to life satisfaction over time. Its association is comparable to or greater than most other influences on life satisfaction, although ill-health has the biggest negative association over time. It is one of the few variables in this data that have a lasting positive association with life satisfaction. Stage of life (age related, older being better, once the effects of ill health are netted out separately) constitutes the other main predictor. Note that getting a university qualification has a surprisingly large and positive association with life satisfaction (university qualifications not generally being associated with improved life satisfaction, as the 1997 controls also indicate). The reason for this surprising result could be partly related to stage of life, moving out of youth being associated with significantly increasing levels of life satisfaction). Whilst it is known that giving behaviours can stimulate an instant 'warm glow' that is seen in increased life satisfaction (Andreoni 1995; Aknin et al. 2013; Dunn et al. 2008), here we see giving may have a longer term impact also, probably because of the relational implications of the behaviour.

Increasing trust in neighbours: Giving both within and outside of one's close social circle (and especially volunteering which indicates positive engagement towards outsiders) all have a significant association with increasing trust. Education has the largest positive association of all and unemployment has the largest negative association, but giving is the next most important explanatory variable after these, comparable to the importance of wealth (house ownership) and exceeding the importance of having a £10,000/year higher income. People who trust others may be more likely to give, but here we see that giving behaviours are also associated with improving levels of trust over time.

Increasing liking for one's neighbourhood: People who host visitors and who engage positively with others in wider social circles are likely to view their neighbourhood more favourably. The giving

is comparable in importance to other demographic variables of significance, although unemployment has a particularly severe negative association with one's attitude towards one's neighbourhood.

Changing crime-perception: People who never hosted visitors became increasingly concerned about crime. Perhaps this is due to a sense of isolation, or perhaps maintaining close knit relationships within a community reduces the desire its members have to cause harm. The importance of this variable is comparable to several other drivers of crime-perception, although the positive influence of wealth and education and the negative association of care roles are more important. People headed for retirement tended to get less concerned about crime (perhaps because they could relocate to a more desirable neighbourhood), and people on household incomes of less than £21,000 per year reported significantly increasing levels of crime compared to those with higher incomes. However here also is our outlier: reports of crime increased most amongst those who were active in organisations. It could be that wider social interactions make one more aware of and sensitized to the crimes pertaining to one's locality. Thus even being in a job (likewise 'connected') was associated with an increase in crime perception, although it is highly unlikely that having a job, any more than being part of an organisation, directly promotes criminality. Indeed, as discussed in Chapter 6, Citizenship data in which real crime data was available would indicate that there is more organized activity, volunteering and monetary giving going on in *low* crime areas. See also Lindsey (2012) for the link between low deprivation and voluntary community action. We come back to this topic in Section 7.5.

Finally, the fear of walking alone at night lessened with all forms of giving, and especially with positive connections to the outside world (volunteering). Although significant, other demographic variables indicative of vulnerability were more important. Older people and women (the most vulnerable to attack) were especially destined to become more afraid of walking alone at night. Non-whites felt vulnerable. So did the sick and people on household incomes of less than £18,000 per year. Being in paid employment helps in the same way as other group connections; linked people feel safer. Indeed, the work place can be viewed as a highly formalized form of mutually beneficial inter-personal relationship, with many of the factors that make relationships between people more satisfactory in the informal community sector also applying to the quality of formalized relations (see for example Fehr and Schmidt 2006; Rotemberg 2006; Fong et al. 2006; Putterman 2006, although giving behaviours are not of course an appropriate means of measuring the quality of market sector relationships).

7.4.2 Assessment of how the control variables are associated with changes to welfare

Regarding the status of welfare at the beginning of the period: All the associations of this variable with the way welfare changes are negative, which means that the greatest change in welfare was experienced amongst those beginning the period with high levels of welfare and moving down, or inversely, amongst those beginning with the lowest levels of welfare and moving up. To illustrate,

note that the most dramatic coefficient is for 'like neighbourhood' simply because it had the least scope for change. People who liked their neighbourhood at the beginning could not move up a 'like' scale, so the only change that could be registered was amongst people moving from like to dislike, or inversely, from dislike to like. All other welfare forms allowed a wider range of change however, and had lower (and similar sized) coefficients. The coefficients are indicative of a well-balanced and stable system (not a society exploding into ever more rapidly polarizing welfare) and indicate a correctly functioning model.

In terms of the control variables, there was no single control variable which was consistently associated with the evolution of every welfare variable over time. However the biggest associations with falling welfare tended to be ill health and care duties for others, followed by (and sometimes exceeded by) the influence of unemployment. Education was generally associated with improving welfare, as was income and wealth, although increasing levels of income had a relatively tiny marginal impact, especially once very low income thresholds were passed. This fits with observations by Bartolini and Sarracino (2014), who in a cross-country comparison, show that income increases provides a short-term boost in wellbeing but has no significant impact on wellbeing in the longer term. Higher incomes are rather pursued because of social comparisons and concerns about 'falling behind' than for any their absolute advantage. Relational investments between people *do* however impact wellbeing long term (see also Mochon et al. 2008).

We see however that care for dependents is not associated with improvements to welfare where significant, especially where the care is directed towards a sick or handicapped person. Despite the fact that the relationships are close, the benefits flow mainly *from* the giver. Becchetti et al. (2013) affirm that caring for the sick drains the carer for a cause that both carer and cared for would prefer to avoid. This is not to conclude that caring roles should be avoided because they do not increase the welfare of the carer. Since needs exist, care is an essential gift. Rather, the findings highlight the need to replenish and provide for care-givers because of the services they render the community at personal cost.

Getting older had a mixed associated with the way welfare changes, and so did gender. Certain aspects of personality influence one's attitude towards others (including giving behaviours), and these are associated with changes in welfare. Differences in R-squared when personality is removed reveals that the strongest influence of personality is on the way that life-satisfaction changes, as expected. Indeed all of the control variables have a logical association with the way that welfare changes, which adds credibility to the model.

We can see that giving behaviours, because of their association with the prosocial qualities of civic sector relationships, are a driving force in the evolution of the social environment. The importance of giving may be even greater when we consider that giving behaviours also interact with the way that

some of these control variables change. In Table 7.2 we saw that various forms of welfare were improved by income increases, by obtaining one's own house and by obtaining a university qualification. Welfare declined following people becoming unemployed, becoming ill or increasing care hours. If giving behaviours influence these drivers which are instrumental to welfare as well as impacting welfare directly, then giving will have a larger effect on welfare than our initial results would suggest. We test for this in Table 3, which shows how giving averaged over the first period (along with other controls at the start of that period) influence the way these variables instrumental to welfare changed over the first period.

Impact of giving on changes in the control variables over the period 1997-2001	Change in household income (units of £1) 5483 values around mean £4433	Change in own house -1, 0, 1	Change in unemployed (negative means to drop out of this group) -1, 0, 1	Change in ill health (negative means to get better) -1, 0, 1	Change in care hours (negative means less hours) -2, -1, 0, 1, 2	Change in university qualification 0, 1
Giving variables average 1997-2001						
volunteer	239.25	-0.0101	0.3737**	-0.0185	0.0205**	-0.0166
(never; irregular; regular)	[409.023]	[0.075]	[0.153]	[0.066]	[0.009]	[0.065]
active in organisations	556.29	-0.0109	-0.4957***	-0.0085	0.0063	0.2177***
(never; irregular; regular)	[458.979]	[0.071]	[0.170]	[0.068]	[0.009]	[0.066]
host visitors	749.50*	0.4729***	-0.3197*	-0.1244	-0.0025	0.0283
(never; irregular; regular)	[400.761]	[0.082]	[0.186]	[0.077]	[0.010]	[0.081]
Fixed controls						
female	-93.61	0.0957	-0.2243	0.0206	0.0352**	0.1312
(dummy)	[644.910]	[0.125]	[0.281]	[0.111]	[0.015]	[0.110]
white	-747.15	-0.4798	-0.4837	-0.2201	0.0474	0.2025
(dummy)	[1,635.627]	[0.318]	[0.533]	[0.272]	[0.032]	[0.220]
age	-1,717.31***	0.2137***	-0.1735**	0.1716***	0.0192***	-0.3779***
(7 categories)	[215.655]	[0.043]	[0.080]	[0.037]	[0.005]	[0.032]
15 personality variables also included to control for fixed affects						
Controls in 1997						
married	2,712.47***	0.3321***	-0.4462*	0.2000*	0.0565***	-0.1904*
(dummy)	[605.051]	[0.107]	[0.254]	[0.103]	[0.013]	[0.111]
responsible for child<16yrs	784.72	0.0137	-0.0285	-0.0892	-0.0036	-0.2807*
(dummy)	[760.496]	[0.151]	[0.346]	[0.137]	[0.017]	[0.145]
in paid work	3,179.31***	0.7200***	0.2654	-0.5748***	-0.0012	-0.7858***
(dummy)	[797.425]	[0.128]	[0.319]	[0.104]	[0.016]	[0.096]
No religion	-437.88	0.0265	0.2506	-0.0154	-0.008	-0.2032**
(1:no; 2:part period; 3:yes)	[550.504]	[0.111]	[0.240]	[0.100]	[0.012]	[0.103]
University qualification	7,718.88***	0.5173**	-0.6375	-0.3153*	-0.0122	-
(dummy)	[994.849]	[0.217]	[0.428]	[0.180]	[0.018]	-
no qualifications	-2,494.48***	-0.6689***	0.2615	0.2982***	0.0261	-
(dummy)	[604.700]	[0.120]	[0.303]	[0.114]	[0.018]	-
annual household income	-4,834.04***	0.0251	0.0592	-0.0067	-0.0009	-0.0291
(in units of £10K)	[514.226]	[0.036]	[0.069]	[0.036]	[0.004]	[0.030]
wealth: own or mortgage	1,054.40*	-21.3496***	-1.0157***	-0.4139***	-0.0272*	-0.0443
house (dummy)	[596.022]	[0.229]	[0.253]	[0.111]	[0.016]	[0.105]
unemployed	2,110.15	-0.0474	-24.9372***	-0.2396	0.0701*	-1.2331***
(dummy)	[1,597.679]	[0.286]	[0.403]	[0.274]	[0.041]	[0.414]
ill health limits activities	-1,454.03**	-0.1925	0.098	-21.2905***	0.0105	-0.9427***
(dummy)	[617.023]	[0.127]	[0.355]	[0.092]	[0.021]	[0.262]
hours spent caring	120.11	-0.1257	-0.5940*	0.1107	-0.5224***	-0.1692
(none, <20hrs, >20hrs)	[652.886]	[0.088]	[0.313]	[0.086]	[0.022]	[0.149]
Observations	5,492	5,471	5,492	5,492	5,426	5,492

R-squared	0.158		0.235
		Robust standard errors in brackets	*** p<0.01, ** p<0.05, * p<0.1

OLS used to analyse changes in household income and in care hours. Ordered logit model for changes in house ownership, employment or health. Probit model for changes in qualification.

Table 7.3: Impact of giving on changes in the control variables over the period 1997-2001

We see that in-group giving was positively associated with how incomes grew in that first period, as well as with wealth accumulation (the likelihood of obtaining one's own house). People who were part of groups and hosting visitors were also more likely to avoid unemployment, although those volunteering tended to be associated with continued unemployment. We also saw that people engaging with groups were more likely to get a university qualifications. In this data, health does not significantly improve in association with giving, although authors such as Kawachi *et al.* (2008) or papers on the Science of Generosity website (n.d.) such as CNCS (2007) would suggest that close personal ties and generosity ae important for good health.

In order to be even clearer about causality, we could test how these variables instrumental to welfare changed over the whole ten year period. This calculation is shown in Appendix Table Bi. We find that the impact of giving on these variables is affirmed, Thus giving, reflective of civic sector relationships, has a direct impact on welfare as well as positively impacting other variables conducive to welfare.

People who volunteer are also more likely to increase their care hours to someone handicapped or in need, but this has a negative impact on the giver's life satisfaction and liking for their neighbourhood and it increases their crime perception. We see in this that 'giving' people who are willing to care for others are people prepared to make sacrifices to their own wellbeing, suggesting that they are intrinsically motivated. The needs of this group of carers must be considered by others to avoid their valuable support for the needy draining them of their own welfare.

7.4.3 Assessment of how the welfare variables are associated with changes to giving

We have seen that the welfare levels of a social environment improve in the presence of giving behaviours, but now we want to check for the existence of an *interaction* going on between giving and the social environment, conform Fig.3.3 and 3.4. Section 7.4 described how giving is associated with an improving social environment, but this section tests whether the social environment is impacting giving. I take care to use the exact same set up for my regressions as was employed in Table 7.2, except that giving becomes the dependent variable, and each form of welfare the regressors. The results are shown in Table 7.4.

Factors influencing giving outcomes	Change in volunteering, period 1 to 2	Change in group activity, period 1 to 2	Change in host visitors, period 1 to 2
Initial welfare 1997/8			
Life satisfaction in 1997	-0.0107	-0.0168*	0.0065
(7 values, low to high)	[0.007]	[0.010]	[0.008]
Trust in 1998	-0.0015	0.0319***	0.0189**
(careful, depends, trust)	[0.009]	[0.012]	[0.009]
Like neighbourhood 1997	-0.0085	0.0995**	0.1615***
(no, yes)	[0.037]	[0.046]	[0.038]
crime-perception 1997	-0.0006	0.0182	0.0201
(66 values low to high crime)	[0.015]	[0.020]	[0.016]
Fear walking alone in dark '97	-0.0185*	-0.0153	0.0034
(4 values of increasing fear)	[0.011]	[0.013]	[0.011]
Initial giving 1997-2001	-0.2732***	-0.4503***	-0.5339***
	[0.011]	[0.012]	[0.014]
Fixed controls			
female	0.0221	-0.0099	0.0450**
(dummy)	[0.019]	[0.025]	[0.019]
white	0.0464	0.0941*	-0.0161
(dummy)	[0.044]	[0.055]	[0.041]
age	-0.0086	0.0191**	-0.0235***
(7 categories)	[0.007]	[0.009]	[0.007]
15 personality variables also included to control for fixed affects			
Controls in 1997			
married	0.0486***	0.0143	0.0167
(dummy)	[0.018]	[0.023]	[0.019]
responsible for child<16yrs	-0.0178	-0.004	-0.0631***
(dummy)	[0.024]	[0.030]	[0.024]
in paid work	-0.0129	-0.018	0.0321
(dummy)	[0.024]	[0.028]	[0.022]
No religion (1:religious;	-0.0392**	-0.0942***	-0.0176
(2:part of period; 3:none)	[0.017]	[0.022]	[0.017]
Controls in 1997 that are in themselves indicative of welfare/instrumental to welfare			
University qualification	0.0774***	0.1008***	0.0406*
(dummy)	[0.025]	[0.031]	[0.022]
no qualifications	-0.0309	-0.0552**	-0.008
(dummy)	[0.020]	[0.026]	[0.021]
annual household income	0.0074	0.0051	0.0163***
(in units of £10K)	[0.006]	[0.007]	[0.004]
wealth: own or mortgage	0.0085	0.0561**	0.0765***
house (dummy)	[0.021]	[0.027]	[0.023]
unemployed	-0.0478	-0.2187**	-0.0092
(dummy)	[0.073]	[0.088]	[0.073]
ill health limits activities	-0.0141	-0.0787**	-0.0315
(dummy)	[0.029]	[0.034]	[0.029]
hours spent caring	0.0111	-0.0034	0.0016
(none, <20hrs, >20hrs)	[0.019]	[0.022]	[0.018]
change in welfare 1997-2001			
more life satisfaction	-0.0071	0.0039	0.0142*
	[0.007]	[0.009]	[0.008]
more trust	0.0026	0.0257**	0.0077
	[0.009]	[0.011]	[0.009]
Like neighbourhood better	-0.0153	0.1025**	0.0618*
	[0.030]	[0.040]	[0.034]
crime-perception up	0.0252*	0.0301	-0.0044
	[0.015]	[0.019]	[0.015]
Fear walking alone in dark up	-0.0241**	-0.0232*	0.006
	[0.009]	[0.012]	[0.009]
change in controls 1997-2001			
got married	0.0174	0.0712**	0.0498*

	[0.025]	[0.032]	[0.027]
got responsible for child	0.0382	0.1473***	-0.0698**
	[0.035]	[0.039]	[0.030]
got work	-0.0914***	-0.0627**	0.0366
	[0.025]	[0.030]	[0.024]
lost religion	-0.0201	-0.0224	0.0053
	[0.020]	[0.026]	[0.020]
change in welfare controls 1997-2001			
got uni qual	0.0639	0.001	0.0801*
	[0.059]	[0.072]	[0.047]
remained unqualified	0.1248	-0.0847	0.0752
	[0.094]	[0.132]	[0.085]
income increase £10K	0.0011	0.0048	0.0057*
	[0.004]	[0.006]	[0.003]
got own house	0.0554**	0.0748**	0.023
	[0.026]	[0.034]	[0.028]
got unemployed	-0.0699	-0.1306	0.0289
	[0.067]	[0.080]	[0.063]
got ill	-0.0091	-0.0628**	-0.0113
	[0.025]	[0.031]	[0.025]
increase in care hours	-0.0106	-0.0097	-0.0098
	[0.019]	[0.020]	[0.017]
Observations	4,921	4,882	4,921
R-squared	0.152	0.212	0.273

Table 7.4: Impact of the welfare variables on changes in giving

Table 7.4 shows that past welfare/the quality of the social environment had some association with the way giving changes, although this was less consistent than might be expected. It would seem from this that giving inclinations are an important variable to consider when making efforts to improve welfare; it cannot be assumed that giving (and the prosocial qualities of civic sector relationships that it represents) will simply take care of itself so long as other variables conducive to a favourable social environment can be engineered.

We see that volunteering levels were changed only by past fear of walking alone at night; the starting fears reduced the likelihood of volunteering, and so did increasing fears. However increasing crime-perception made the take-up of volunteering more likely (a negative social variable had a *positive* impact on giving). This may be because giving and concern for one's social environment (sensitization to its problems) work together. Trust and liking for one's neighbourhood had no impact on the way volunteering changed, although we saw in Table 7.2 that volunteering was found to impact these forms of welfare.

Improvements in group attendance were positively associated with starting trust and liking for one's neighbourhood, as with increasing trust and increasing liking for one's neighbourhood. However those with higher levels of starting life satisfaction saw falling levels of group attendance. A personal sense of satisfaction is clearly not a driving the more out-group forms of giving, which is to make the same point as was remarked in the preceding paragraph: Giving across social boundaries tends to go with

concern about others, not with personal satisfaction and complacency. However as personal fears of walking alone at night increases, the attendance of groups decreases.

Hosting increased in association with high starting levels of trust and liking for one's neighbourhood. It also increased in association with increasing life satisfaction and increasing liking for one's neighbourhood. Crime perception and fear of walking alone at night had no association with changes to hosting, although hosting was seen to have a mitigating impact on these variables.

With respect to the controls: Although past giving behaviours are important predictors of present giving, the negative coefficients related to the 1997-2001 giving show that the model is correctly specified, with a movement inwards from extremes being observed.

Other variables descriptive of a person's social environment and of their personal position within it were also associated with the way giving changes, just as they were associated with the way welfare changes. Higher levels of education were associated with all forms of giving. Household income and wealth were also important but to a less consistent extent. Being religious was associated with increases in formal giving. The importance of religion and education on giving behaviours is confirmed by English and Ray (2011) by Bauer et al. (2012) and by Algan et al. (2013). One or another form of giving was reduced in association with ill health, and getting work also appeared to substitute for formal giving. Marriage and getting married was associated with an increase in some forms of giving.

We see overall that the social environment and a person's position within it do affect giving, but that a person's decision to give, representative of her personal prosocial inclinations towards others in her social environment is also of influence on that social environment. The individual is positively or negatively *affected* by her wider relational environment, but she also has the power to positively or negatively *influence* that relational environment. The two interact sequentially, with the time lags enabling us to trace causality. The interactions between these two reinforce one another such that a cycle of improving or eroding social cohesion may ensue.

7.4.4 Robustness checks

To check for robustness, particularly in the results of Table 7.2, we ran these same regressions including a variable for whether or not people moved house at some point in the entire period, 1997-2006/7. This was to check that the welfare gains were not simply because of having moved to a completely different social environment. Although moving house was correlated with significant improvements in terms of life-satisfaction, liking for one's neighbourhood and a lower perception of crime, it made little or no difference to the sign or significance of the giving coefficients; giving retained its explanatory power with respect to changing welfare.

Another robustness check was to add the starting status of every type of welfare into each regression. Again, although some of the other welfare variables had a significant impact on the way that the dependent welfare variable changed over time, the importance of giving was not negated; the overall picture remained the same (see results in Appendix Table 7Bii). This suggests that although giving behaviours depend to some extent on the wider social environment, the importance of the giver's own personal decision to engage is sufficiently great to retain its significant impact on the social environment in its own right.

But as regards the impact of one form of welfare on another, we note that most of the associations between one form of welfare and eventual changes in another followed an intuitively clear pattern; the model appears robust. We found that high starting levels of welfare in one area saw improvements in other areas also or, inversely, low starting levels saw lowering levels of welfare in other areas. Thus people with high levels of life-satisfaction in 1997 saw increasing appreciation of one's neighbourhood and a lowering perception of crime. People with high initial levels of trust saw increasing levels of life-satisfaction, lowering levels of crime perception and lowering fear of walking alone at night. People who liked their community in 1997 saw improving life-satisfaction, improving trust, and reducing crime-perception. People who had high perceptions of crime in 1997 saw lowering trust, reducing appreciation of one's neighbourhood and increasing fear of going out alone at night. People most afraid of going out alone at night saw decreasing trust.

Two aspects of welfare do *not* appear to promote further welfare however. People with high levels of life-satisfaction saw *lowering* levels of trust (or inversely, the least satisfied saw increasing levels of trust). This suggests that the ones who start out dissatisfied (for example, the younger generation) tend to be the ones who are making the most strides in becoming established and building their trusting networks as time passes. Secondly, people who liked their community in 1997 experienced increases in crime-perception (or people who disliked their community in 1997 saw decreases in crime-perception). Maybe crime was reduced in the worst areas during the period, or maybe the ones who most appreciated their neighbourhood were most sensitive to its risks. Despite these exceptions for which there are plausible explanations, it should be emphasised that on the whole, in keeping with expectation, those doing well in one area were likely to flourish in other areas also.

As discussed in Section 7.4.3, these findings suggest that it is not only individual decisions to give and the individual life-demographics that influence the ongoing welfare of the respondent, but also the wider conditions of that social environment. This identification concurs with Figs.3.3 and 3.4 in which individual attitudes and the wider social environment interact, and that the nature of that interaction determines whether social cohesion is improving or being eroded. The hypothesis is not negated by tables 7.2 and 7.4 in which it was seen that not only is giving associated with the way that welfare changes, but also welfare is associated with the way that giving changes, sequentially, over time.

Overall, the robustness checks show that the model is robust to various changes in its specification. Moreover, the interlinkages between the variables are of interest. For example liking for one's neighbourhood was very important in its association with the way that other forms of welfare changed, yet we see that being in giving networks has one of the most important influences on this variable (see Table 7.5). Table 7.5 enhances the picture of how giving impacts welfare, in that the regression shows how giving and all control variables in *both* time periods influence the way welfare changes over those periods.

Variables influencing changes in welfare	Change life satisfaction over the period 1997-2006	Change in trust vs. 'can't be too careful' 1998-2007	Change in likes vs. dislikes neighbour-hood 1997-2006	Change in crime perception 1997-2007 (positive means more crime)	Change in fear of walking alone at night 1997-2007 (positive means more fear)
Giving variables average 1997-2001/2					
volunteer	0.0267	0.0871***	0.1605	-0.0019	-0.0711***
(never; irregular; regular)	[0.023]	[0.020]	[0.116]	[0.011]	[0.019]
active in organisations	0.0112	0.0397*	0.3059***	0.0317***	-0.0481**
(never; irregular; regular)	[0.025]	[0.021]	[0.114]	[0.012]	[0.021]
host visitors	0.1580***	0.1066***	0.4088***	-0.0487***	-0.0437*
(never; irregular; regular)	[0.032]	[0.025]	[0.132]	[0.015]	[0.025]
Change in giving to 2002-2006/7					
increase volunteering	0.0189	0.0416	0.0582	0.0012	-0.0369
	[0.029]	[0.025]	[0.140]	[0.015]	[0.025]
increase activity in orgs	0.0276	0.002	0.2058*	0.0292**	-0.0454**
	[0.024]	[0.021]	[0.115]	[0.012]	[0.020]
increase hosting visitors	0.1389***	0.0794***	0.1397	-0.0326**	-0.0061
	[0.031]	[0.025]	[0.125]	[0.015]	[0.024]
Dependent variable	-0.6958***	-0.6078***	-24.6540***	-0.6372***	-0.6470***
baseline status	[0.016]	[0.015]	[0.763]	[0.015]	[0.016]
Fixed controls					
female	0.0827**	-0.0253	0.2633	-0.0148	0.3472***
(dummy)	[0.038]	[0.032]	[0.169]	[0.018]	[0.035]
white	-0.0002	0.0699	0.2899	-0.0349	-0.1498*
(dummy)	[0.093]	[0.071]	[0.375]	[0.051]	[0.077]
age	0.0769***	0.0339***	-0.0832	-0.0325***	0.1011***
(7 categories)	[0.015]	[0.013]	[0.069]	[0.008]	[0.013]
15 personality variables also included to control for fixed affects					
Controls in 1997					
married	0.0680*	-0.0035	-0.0249	0.0199	-0.0661**
(dummy)	[0.040]	[0.032]	[0.175]	[0.020]	[0.033]
responsible for child<16yrs	-0.057	-0.0539	-0.2474	0.0554*	-0.1142**
(dummy)	[0.057]	[0.046]	[0.257]	[0.028]	[0.049]
in paid work	-0.0822	0.0377	-0.3347	0.0433	-0.2310***
(dummy)	[0.051]	[0.043]	[0.217]	[0.027]	[0.046]
No religion (1:religious;	-0.0702*	0.0131	-0.1277	-0.0087	-0.0669**
(2:part of period; 3:none)	[0.038]	[0.032]	[0.180]	[0.018]	[0.031]
Controls in 1997 that are in themselves indicative of welfare/instrumental to welfare					
University qualification	0.0478	0.2110***	-0.0113	-0.0763***	-0.1130***
(dummy)	[0.046]	[0.042]	[0.265]	[0.022]	[0.039]
no qualifications	0.0369	-0.2220***	-0.0762	0.022	0.0308
(dummy)	[0.043]	[0.035]	[0.167]	[0.021]	[0.036]
annual household income	0.0137	0.0283***	0.1307*	-0.0111*	-0.0257***
(in units of £10K)	[0.010]	[0.010]	[0.068]	[0.006]	[0.009]
wealth: own or mortgage	-0.0212	0.0551	0.3908**	-0.1149***	-0.0029
house (dummy)	[0.050]	[0.037]	[0.194]	[0.027]	[0.041]

unemployed	-0.6614***	-0.3318***	-1.3970***	0.1336	-0.2894*
(dummy)	[0.211]	[0.125]	[0.541]	[0.092]	[0.152]
ill health limits activities	-0.6227***	-0.0408	-0.5723**	0.0401	0.2286***
(dummy)	[0.070]	[0.046]	[0.233]	[0.032]	[0.052]
hours spent caring	-0.1200***	-0.0779**	0.2195	0.0580**	0.02
(none, <20hrs, >20hrs)	[0.046]	[0.031]	[0.161]	[0.023]	[0.037]
change in controls 1997-2001					
got married	0.0841	-0.0306	0.2509	-0.018	0.0107
	[0.056]	[0.046]	[0.207]	[0.026]	[0.044]
got responsible for child	-0.0383	-0.032	-0.5023	0.0229	0.0646
	[0.067]	[0.056]	[0.321]	[0.033]	[0.057]
got work	-0.044	0.0189	-0.2578	0.0158	-0.2284***
	[0.058]	[0.047]	[0.241]	[0.029]	[0.049]
Lost religion	-0.0386	-0.0099	-0.2409	-0.017	-0.0315
	[0.047]	[0.040]	[0.207]	[0.023]	[0.038]
change in welfare controls 1997-2001					
got uni qualification	0.1259	0.1045	0.674	-0.1108**	0.1627*
	[0.088]	[0.094]	[0.746]	[0.045]	[0.088]
remained unqualified	-0.0676	-0.3119	0.8217	-0.129	0.1148
	[0.204]	[0.198]	[0.790]	[0.096]	[0.172]
income increase £10K	0.014	0.011	0.1503**	-0.0113**	-0.008
	[0.009]	[0.009]	[0.060]	[0.005]	[0.007]
got own house	-0.0459	0.0706	-0.2273	-0.0997***	-0.1110**
	[0.065]	[0.051]	[0.267]	[0.035]	[0.050]
got unemployed	-0.5482***	-0.2593**	-0.876	0.1521*	-0.2716*
	[0.196]	[0.114]	[0.534]	[0.085]	[0.144]
got ill	-0.6390***	-0.0549	-0.6077***	0.0253	0.2415***
	[0.069]	[0.047]	[0.228]	[0.031]	[0.054]
increase in care hours	-0.1259***	-0.0641**	-0.244	0.0578***	0.0147
	[0.044]	[0.032]	[0.159]	[0.021]	[0.035]
change in controls 2001-2006					
got married	0.2925***	0.0432	0.0792	0.0021	0.0177
	[0.051]	[0.042]	[0.258]	[0.025]	[0.043]
got responsible for child	0.1486**	-0.0354	0.38	-0.0108	-0.0356
	[0.069]	[0.056]	[0.265]	[0.034]	[0.056]
got work	0.0049	0.0332	-0.2049	0.0233	-0.0907**
	[0.055]	[0.041]	[0.242]	[0.025]	[0.044]
Lost religion	-0.029	0.0726**	-0.1733	-0.0197	-0.045
	[0.040]	[0.033]	[0.178]	[0.020]	[0.035]
change in welfare controls 2001-2006					
got uni qualification	0.0692	0.1675	0.8149	-0.0997*	-0.1950**
	[0.121]	[0.110]	[0.806]	[0.053]	[0.093]
remained unqualified	-0.2668	-0.395	0.4485	-0.4811***	0.0219
	[0.346]	[0.271]	[0.833]	[0.134]	[0.152]
income increase £10K	0.0091	0.0069	0.1020**	-0.0134***	0
	[0.008]	[0.007]	[0.052]	[0.004]	[0.007]
got own house	-0.0084	0.0104	-0.5077**	-0.0297	-0.038
	[0.061]	[0.047]	[0.216]	[0.031]	[0.049]
got unemployed	-0.5198***	-0.1027	-0.7176*	0.1420**	-0.0845
	[0.156]	[0.095]	[0.392]	[0.070]	[0.104]
got ill	-0.5090***	-0.0967**	-0.2358	-0.0006	0.1801***
	[0.056]	[0.038]	[0.185]	[0.025]	[0.043]
increase in care hours	-0.0558	-0.0631**	0.0375	0.024	-0.0109
	[0.036]	[0.026]	[0.151]	[0.017]	[0.029]
Observations	4,833	4,601	4,910	4,697	4,671
R-squared	0.399	0.32		0.358	0.345

Robust standard errors in brackets *** p<0.01, ** p<0.05, * p<0.1

Table 7.5: Welfare changes controlling for current and past giving

The figures in Table 7.5 allow us to observe persistence in the impact of giving. Apart from the usual outlier (being active in organisations tends to increase crime perception), we can see that giving is associated with improvements in all forms of welfare. However the initial levels of giving have greater importance to the overall direction of welfare than whether the person subsequently gives more or less. This suggests that if someone gives in the past, the positive social effects persist even if the individual no longer gives in the present. The findings also fit with expectations in that I have highlighted the importance of time lags in this model. A person who gives does not necessarily feel an instant benefit, but benefits accrue as relationships between people are strengthened over time, improving the social environment for everyone.

Besides the impact of giving on the way welfare changes, the massive, negative and persistent consequences of ill health and unemployment on welfare can be seen. Ill health and unemployment have the most persistent associations with welfare losses of all variables. However giving represents a more elusive positive influence, more important than the influence of having a bigger income by £10,000 per year, and generally more important than having a house (wealth). Further education is also important – more important than giving when it comes to changes in trust, crime perceptions and fear of walking alone at night, but less important when it comes to changes in life satisfaction and in liking for one's neighbourhood. Taking part in giving networks is vitally associated with greater liking for one's neighbourhood and is quite important to improving trust, compared to the other influences on these variables. Close relational ties expressed in giving also have a rare positive and persistent association with improving life satisfaction.

The R-squared statistic shows that the models explain only about a third of the variation in the dependent welfare variable. Welfare depends not only on how people behave towards others (reflected in the giving variables) and on their personal circumstances (picked up in the controls); welfare also depends on the prosocial or antisocial behaviour of the people they are surrounded by, and on the wider circumstances of the area like proximity to facilities, the pleasantness and beauty of the area, and the effectiveness of crime controls etc. These variables cannot be controlled for using this data, but, assuming we have made sufficient allowance for confounding effects, we *can* test the hypothesis that prosocial behaviours, proxied for in giving, make a significant contribution to producing a more desirable living environment in their own right.

7.5 How different forms of giving correlate to regional welfare

Table 7.1 showed that giving people are better off than non-giving people, and to assert causality, Section 7.4 showed that welfare significantly improved for people over a 10 year period when the first five years of that period were characterised by giving. The data allowed us to consider giving both within and outside of one's close social boundaries, and both appear to be important to welfare. Hosting represents close ties and has the most consistent positive association with improving welfare,

whilst volunteering and attending organisations represents positive links with the wider community and occasionally has the bigger association with improving welfare. The fact that both are significant conforms to the literature touched on in Section 7.2, which states that close relational ties have the most direct reciprocal impact, but for welfare and opportunity in the context of one's wider society, there also needs to be positive links into the wider socio-economic environment (Grant 2001; Krishna 2002; Grootaert and Van Bastelaer 2002).

Giving is a prosocial activity; it benefits someone other than the giver which implies positive externalities. The importance of these generalized benefits may be revealed through regional assessments of involvement in giving and is illustrated in Table 7.6. The BHPS divided respondents into 12 regions, excluding Northern Ireland for which there was little relevant data. These regions constituted the North East, North West, Yorkshire and Humber, East Midlands, West Midlands, East of England, London, South East, South West, Wales and Scotland. Simple correlations between average giving and average welfare by region reveal how generalised giving behaviours in each of its forms relate to regional benefits. As a basis for comparison, we also correlate average incomes to the welfare of those regions. In this we see whether it is incomes or giving behaviours that best correlates with the various forms of welfare.

	av. life-satisfaction of region	av. trust in region	av. like neighbour-hood	av. crime perception in region	av. fear of walking alone at night	av. income of region
av. volunteer	0.70**	0.75***	0.60**	-0.65**	-0.66**	0.72**
av. attend orgs	0.30	0.58**	0.35	-0.29	-0.28	0.63**
av. host visitors	0.60**	0.36	0.40	-0.31	-0.36	0.51
and for comparison:						
av. income of region	0.19	0.70**	0.09	-0.02	-0.14	-

BHPS data used for these comparisons is based on 9,698 observations split across the 12 regions. The individual level data which is averaged by region comprises the averaged responses of individuals over period 1 of this analysis and excludes those who did not answer all the questions relevant to this table.

Table 7.6 Correlations between average giving behaviours and average welfare by region

Here we see that giving norms outside of close relational ties usually have *more* of an association with regional welfare than close-group giving norms, which contrasts with our individual level correlations. Consider for example the -0.65 correlation between average crime perception and average volunteering (statistically significant even with this small sample size). Crime-perception has been our consistent outlier in the individual level analysis, with Table 7.2 and 7.5 suggesting that participation in open networks actually sensitizes a person to crime, not desensitizes them. Also Table 7.4 revealed no sign that lower crime perceptions stimulated volunteering. And yet in this regional data we see that a norm of giving *is* associated with lower crime-perceptions for the region, suggesting that even

though giving might not make the giver feel there is less crime, it does appear to have that effect on *others*.

This applies not only to crime but to every form of welfare; volunteering improves the overall health of the social environment, and this is evident in the improved welfare of *others*. The reason the regional impact is particularly strong for volunteering could be that externalities are greater than for the close-group giving where the reciprocal returns are more direct. Participation in organisations is also related to open networks, but may be less significant to generalised welfare than volunteering since its impact on other people is less obviously for their benefit; it is possible to be involved in a group more for one's own benefit more than for the benefit of others. It appears to be the willingness to benefit *others* that is important to generalised welfare.

This is not to undermine the importance of close-group giving, since wider forms of giving are unlikely to occur unless the giver feels in-group support. Indeed, there is a statistically significant link between the two forms of giving; people who do one are more likely to do the other.[7] This finding corresponds also to Chapter 4 where links between different forms of giving were found. And it ties in with the lab experiment in Chapter 5: relational proximity stimulates prosocial motivation towards outsiders. Even within the Berkshire survey (Zischka in collaboration with BCF 2014) we found that giving *people,* those who build community, tend to give in multiple ways. Thus the more people gave time (volunteered), the more they gave money also (charitable donations) (see Appendix 6C). In addition, 79% of those who gave to charity gave to more than one cause (and 50% to more than two causes). Those who were generous in the formal giving sector (giving to charities or volunteering for local groups) tended to be generous at home amongst informal contacts also (family, friends and neighbours) (Appendix 6C Note 10). The various forms of informal giving also go together. Talking to neighbours, taking dependents out, inviting people to one's home, giving time and money to individuals outside of the household… in all cases, people who do one are more likely to do another (Appendix 6C Note 11). 85% of people participating in organisations serving across boundaries of locality, religion or race were involved also in organisations serving family members, local community or community local to one's work place, and 70% of people making charitable donations across geographical and cultural boundaries also gave within them. This survey was not a representative sample of the wider population, but it does show the tendency of prosocial behaviours to be manifest in multiple ways.

Giving within close social boundaries may feed back more directly to the welfare of the giver, whilst giving outside of those boundaries has more spill-over effects for everyone. Even in Section 6.2.1.2 it was noted how this reflects in the data. I suggested that giving outside of social boundaries is less

[7] An ordered logit model of average volunteering in period 1 to average hosting visitors in the same period gives a coefficient of 0.36054*** Robust standard error: 0.0345 P>|z| 0.000 and is just as significant with or without controls.

driven by social pressures and incentives, depending instead on more other-centred motivations. We saw how this type of giving was particularly associated with desirable welfare outcomes. Thus both in-group and out-group giving have their own separate and significant impact on welfare.

We note that each form of giving behaviour, particularly the wider forms of giving, are correlated also to the average incomes of the region. So then, might income differentials explain these differences in welfare just as well? To test this we have also computed in Table 7.6 how average incomes for the region correlate to each form of welfare. Comparing the giving-welfare link to the money-welfare link, we find that the giving-welfare link is the better predictor of welfare every time. Indeed, apart from the correlation between average household incomes and average trust levels, the only striking thing about household incomes is how poorly they predict welfare.

This is not to assume that having more or less money does not significantly impact an individual's welfare: higher *average* incomes can either mean an equal increase in benefits for everyone, or it can mean that a favoured few are becoming a great deal better off. In the latter (more likely) scenario, the disutility associated with increasing disparities of income could counteract any advantages that the higher incomes bring (Wilkinson and Pickett 2009). What we can rather affirm from this work is that giving behaviours, indicative of prosocial behaviours within the civic sector, provide information on the condition of society that is distinct from the information we glean from income measures. We have seen that giving interactions both within and across social boundaries predict welfare.

7.6 Conclusion

This chapter affirms that giving behaviours, expressive of prosocial, pro-cohesive civic sector relationships, were positively associated with welfare outcomes. 'Giving' people were better off than non-giving people, and persons representative of giving networks were better-off after 10 years than persons outside of giving networks. This is not to suppose that benefits accruing to the giver depend on the giver's behaviour alone. Giving is a positive inter-personal activity, meaning that it positively affects persons *other* than the one doing the giving. Its sustainability as well as the welfare impact to the giver depends not only on her own giving behaviours, but also on the wider social environment and the way other people are reciprocating the favours; it is a 'giving' social *network* that matters to welfare.

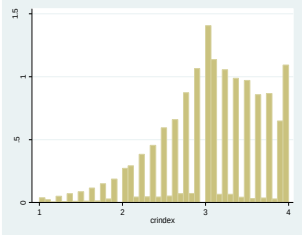
The interaction hypothesised in Figs.3.3 and 3.4 is not negated then. It would appear that an individual who gives is an individual who takes others into consideration in her resource allocation decisions. The degree to which she does this is influenced by her social environment with its norms, pressures and incentives, and also by her personal beliefs, values and attitudes towards others. Where individuals display consideration for others in the way they allocate their resources, the social environment changes for the better over time with its social ties, trust levels and capacity for

collaboration. The improved social environment then affects the way people treat one another over time and, either directly or indirectly, may subsequently affect how the original givers are treated. This again feeds back to the motivation of the individual.

Thus prosocial inclination, proxied in giving, is one factor that may be usefully measured when considering how the *civic sector* is contributing to social cohesion. Civic sector relations are complex and hard to measure, but its prosocial qualities within the civic sector are expressed in giving flows, and the transfers of time and money are easier to monitor.

Although income is by far the most widely accepted indicator of welfare, we saw that for social condition, 'give'/'not-give' indicators have more predictive and prescriptive power. We also saw that in-group giving has the most consistent influence on personal welfare over time, although not necessarily the greatest influence, and for the overall welfare of society out-group giving was of greater importance. The two forms of giving represent different aspects of civic networks: rich, supportive bonding ties and weaker but opportunity enhancing bridging ties. They are complementary, and both should be monitored for a more accurate assessment of civic sector relations. The simplicity of give/not give measures and their scope for aggregation (percentage in a community giving/not giving) makes this a useful basis by which policy makers can monitor whether their interventions are contributing to or damaging the civic sector.

Appendix 7A: BHPS Variables

Outcomes or change in outcomes	year in which data is available		%
Life satisfaction (lfsato)	97 98 99 00 __ 02 03 04 05 06 07	1=completely dissatisfied	1.49
		2=mostly dissatisfied	2.18
		3=somewhat dissatisfied	6.07
		4=neither satisfied or dissatisfied	13.95
		5=somewhat satisfied	29.35
		6=mostly satisfied	32.62
		7=completely satisfied	14.35
		Average response over 1997-2001: 'xlfsato' with 37 values	
Change in life satisfaction	For 1997-2006: compare 'allsat97' to 'allsat06' for new variable: 'chsat'. 13 values, positive is better, 38.97% stay same. For 1997-2000, new variable: 'chsatto00'		
Trust (trust)	__ 98 __ 00__ __ 03 __ 05 __ 07	recoded trustn	
		1= can't be too careful	58.16
		2=depends	4.46
		3= most can be trusted	37.38
		Average response over 1997-2001: 'xtrustn' with 5 values	
Change in trust	For 1998-2007: compare 'alltr98' to 'alltr07' for new variable: 'chtrust'. 5 values, positive is better, 72.36% stay same. For 1998-2000, new variable: 'chtrust00'		
Do you like your neighbourhood (lknbrd)	97 98 99 00 01 02 03 04 05 06 07	recoded 'like'	
		0=no	6.87
		1=yes	93.13
		Average response over 1997-2001: 'xlike' with 11 values	
Change in like neigh-bourhood	For 1997-2006: compare 'alllk97' to 'alllk06' for new variable: 'chlike'. 3 values, positive is better, 89.92% stay same. For 1997-2001, new variable: 'chlike01'		
crime-perception (crburg, crcar, crdrnk, crgraf, crmugg, crrace, crteen, crvand)	97 __ __ __ __ 02 __ __ __ __ 07	The original questions had 4 options, averaged to make an index (crindex) with 67 options from 1 (high crime) to 4 (low crime) (subsequently reverse coded to 'revcrindex')	
		Average response 1997 and 2002: 'xxcr' 350 values	
Change in crime-perception	For 1997-2007: compare 'allfear97' to 'allfear07' for new variable: 'chfear.' 270 values, positive means worse crime-perception, 9.39% stay same. For 1997-2002, new variable: 'chfear02'		
Fear of walking alone at night (crdark)	97 __ __ __ __ 02 __ __ __ __ 07	1=very safe	27.90
		2=fairly safe	40.77
		3=a bit unsafe	13.50
		4=very unsafe/never go out after dark	17.83
		Average response 1997 and 2002: 'xxcrdk' with 7 values	
Change in fear of walking alone at night	For 1997-2007: compare 'alldkfear97' to 'alldkfear07' for new variable: 'chdkfear'. 7 values, positive means worse fear, 49.35% stay the same. For 1997-2002, new variable: 'chdkfear02'		

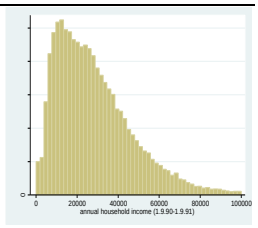
Giving variables	year in which data is available		%
volunteer in leisure time (lactl). Recoded 'vol'	__ 98 __ 00 __ 02 __ 04 __ 06 __	1=never	79.31
		2=once a year or less	5.17
		3=several times a year	4.73
		4=at least once a month	10.78
Average volunteer over 1998-2002 (volunteer9802) re-categorized as xvol9802	__ 98 __ 00 __ 02	never volunteered (xxvoldx)*	67.24
		volunteered once a year or less	17.38
		volunteered more than once a year (xxvold)*	15.39
		Data excludes those not responding in all relevant waves	
Average volunteer over 2002-2006 (volunteer0207) re-categorized as xlvol0207	02 __ 04 __ 06 __	never volunteered (vol0207d)*	64.06
		volunteered once a year or less	20.96
		volunteered > once a year (vol0207dx)*	14.98
		Data excludes those not responding in all relevant waves	
Active in an organisation (orga). Recoded 'org'	97 __ 99 __ 01 __ 03 __ 05 __ 07	0=no	55.03
		1=yes	44.97
Average active in organisation (orgs) over 1997-2001 re-categorized as xorgs	97 __ 99 __ 01	never (xorgdx)*	37.25
		sometimes	33.47
		always (xorgd)*	29.28
		Data excludes those not responding in all relevant waves	
Average active in organisation (orgs0207) over 2002-2007 re-categorized as xlorg0207	__ 03 __ 05 __ 07	never (org0207dx)*	38.26
		sometimes	34.67
		always (org0207d)*	27.07
		Data excludes those not responding in all relevant waves	
Fed visitors in the last month (hscanf). Recoded 'host'	97 98 99 00 01 02 03 04 05 06 07	0=no	24.28
		1=yes	75.72
Average host over 1997-2001 (hostvis) re-categorized as xhost3	97 98 99 00 01	never (xhostdx)*	9.95
		sometimes	37.81
		always (xhostd)*	52.24
Average host over 2002-2006 (xhost0207) re-categorized as xlhost0207	02 03 04 05 06	never (host0207dx)*	7.09
		sometimes	35.56
		always (host0207d)*	57.35

*dummy variables made of these values

Fixed control variables	**year in which data is available**			**%**
sex	97 98 99 00 01	1=male		45.57
	02 03 04 05 06 07	2=female		54.43
white	97 98 99 00 01	re-code 'white'		
(from 'race' and 'racel')	02 03 04 05 06 07	0=other		2.96
		1=white		97.04
age (from 'age' ranging from	97 98 99 00 01	16-21 = reference group		(10.28)
15-100 years). Re-categorized	02 03 04 05 06 07	22-30 (to30)		15.33
to 'age7' (7 age brackets in		31-40 (to40)		19.31
1997. Also as dummies for each		41-50 (to50)		17.34
category		51-60 (to60)		14.34
		61-70 (to70)		11.22
		71 plus (up71)		12.04
Personality: 15 variables for	__ __ __ __ __	Agreeableness:	- sometimes rude	
various aspects of personality.	__ __ 05 __ __		- forgiving nature	
For each variable the			- considerate and kind	
respondent rates themselves on		Conscientiousness:	- thorough job	
a scale of 1-7 (from optrt5a1			- lazy	
optrt5c1 optrt5e1 optrt5n1			- efficient	
optrt5o1 optrt5a2 optrt5c2		Extraversion:	- talkative	
optrt5e2 optrt5n2 optrt5o2			- outgoing, sociable	
optrt5a3 optrt5c3 optrt5e3			- reserved	
optrt5n3 optrt5o3)		Neuroticism:	- worries	
			- nervous	
			- relaxed, handles stress well	
		Openness to	- original, comes up with ideas	
		experience:	- value artistic, aesthetic experience	
			- active imagination	

Controls that vary	year in which data is available		%
legal marital status (mlstat) re-categorized to status between 1997 and 2001 and coded 'xmarried'	97 98 99 00 01 02 03 04 05 06 07	1=not married the whole period 2=married part of the period 3=married the whole period	42.93 7.94 49.13
Change in marital status 1997-2001. Compare 'allmar97' to 'allmar01' for new variable: 'chmarried'	97 __ __ __ 01	-1=lost marriage 0=stayed the same 1=got married	3.99 90.43 5.57
Change in marital status 2001-2006, new variable: 'chmarried2'			
Responsible for a dependent child under 16 (rach16)[8] re-categorized to status between 1997 and 2001 and coded 'chcare'	97 98 99 00 01 02 03 04 05 06 07	1=never 2=partially 3=always	80.42 4.96 14.62
Change in responsibility for children 1997-2001. Compare 'allkid97' to 'allkid01' for new variable: 'chkid'	97 __ __ __ 01	-1=no more child<16 years 0=stayed the same 1=got kids	3.36 93.44 3.20
Change in responsibility for children 2001-2006, new variable: 'chkid2'			
In paid work (jbstat) re-categorized to status between 1997 and 2001 and coded 'xwork'	97 98 99 00 01 02 03 04 05 06 07	1=never in work 2=in work part of the time 3=always in work	35.03 19.02 45.95
Change in work status 1997-2001. Compare 'allwk97' to 'allwk01' for new variable: 'chwk'	97 __ __ __ 01	-1=stop paid work 0=stay the same 1=start paid work	8.10 83.73 8.18
Change in work status 2001-2006, new variable: 'chwork2'			
No religion (oprlg1) re-categorized to status between 1997 and 2001 and coded 'xnorelig'	97 __ 99 __ __ __ __ 04 __ __ __ (data in 2001 is supplementary)	0=religious identity whole period 0.5=change in period 1=no religion whole period	52.98 11.35 35.67
Change beliefs 1997-1999. Compare norelig97 to norelig99 for new variable 'chnorelig'	97 __ 99 __ __	-1=became religious 0=stay the same 1=lost religion	9.11 80.16 7.73
Change in beliefs 2001-2006, new variable: 'chnorelig2'			

[8] Less than 1% of men compared to over 30% of women respond 'yes' to this question, suggesting that the question is not picking up so much on the existence of a child, but practical responsibility for that child.

Controls that are in themselves instrumental to welfare	**year in which data is available**		**%**
university education (from qfachi). Re-categorized to status in 2001: 'alluni01'	97 98 99 00 01 02 03 04 05 06 07	0=no 1=yes, got a university qualification by 2001	87.59 12.41
Change in university education 1997-2001. Compare 'alluni97' to 'alluni01' for new variable: 'chuni'	97 __ __ __ 01 __ __ __ __ __ __	0=stayed the same 1=obtained a uni qualification in period	97.57 2.43
Change in university education 2001-2006, new variable: 'chuni2'			
Change in university education 1997-2006. Compare 'alluni97' to 'alluni01'for new variable:'chuni06'	97 __ __ __ __ __ __ __ __ 06 __	0=stayed the same 1=obtained a uni qualification in period	95.78 4.22
no qualifications (from qfachi) Re-categorized to status in 2001: 'allnoqual01'	97 98 99 00 01 02 03 04 05 06 __	0=some form of qualification in 2001 1=no qualifications by 2001	67.38 32.62
Change in no qualification 1997-2001. Compare 'allnoqual97' to 'allnoqual01' for new variable: 'chnoqual'	97 __ __ __ 01 __ __ __ __ __ __	-1=obtained a qualification 0=stayed the same	0.76 99.24
Change in no qualification 2001-2006, new variable: 'chnoqual2'			
Change in no qualification 1997-2006. Compare 'allnoqual97' to 'allnoqual06' for new variable: 'chnoqual06'	97 __ __ __ __ __ __ __ __ 06 __	-1=obtained a qualification 0=stayed the same	0.87 99.13
Annual household income (fihhyr). Average response 1997-2001 'xhhy10k' in units of £10,000 has 15,675 values, mean 2.53 (i.e. £25,300)	97 98 99 00 01 02 03 04 05 06 07	Continuous variable from 0 to 1.2 million pounds with 94,900 unique values (incomes higher than £100,000 not shown in histogram) 	
Change in annual household income 1997-2001. Compare 'xlally97' to 'xlally01' for new variable:'chy'	97 __ __ __ 01	5,483 values from minus £228K to plus £468K, positive is better, only 11 persons stayed the same (chy10k is the same in units of £10K)	
Change in annual household income 2001-2006, new variable: 'chy10k2'			
Change in annual household income 1997-2006. Compare 'xlally97' to 'xlally06' for new variable:'xlchhhy'	97 __ __ __ __ __ __ __ __ 06 __	4,071 values from minus £203K to plaus £166K, positive is better, only 11 persons stayed the same	
Wealth: house owned outright or with mortgage (from hsownd) re-categorized to status between 1997 and 2001: 'xownhs'	97 98 99 00 01 02 03 04 05 06 07	1=not own house 2=during period 3=house owned for whole period	26.09 10.73 63.15
Change in house ownership 1997-2001. Compare 'allhs97' to 'allhs01' for new variable: 'chown'	97 __ __ __ 01	-1=lost house 0=stayed the same 1=became a house owner	3.57 90.01 6.42
Change in house ownership 2001-2006, new variable: 'chown2'			
Change in house ownership 1997-2006. Compare 'allhs97' to 'allhs06' for new variable: 'chown06'	97 __ __ __ __ __ __ __ __ 06 __	-1=lost house 0=stayed the same 1=became a house owner	5.27 86.47 8.27

unemployed (from jbstat) re-categorized to status between 1997 and 2001: 'xunemp'	97 98 99 00 01 02 03 04 05 06 07	1=never unemployed 2=unemployed < half the time 3=unemployed half or more of the time	91.17 5.92 2.92
Change in unemployment 1997-2001. Compare 'allunemp97' to 'allunemp01' for new variable: 'chunemp'	97 __ __ __ 01	-1=got out of unemployment 0=stayed the same 1=became unemployed	2.61 95.81 1.58
Change in unemployent 2001-2006, new variable: 'chunemp2'			
Change in unemployment 1997-2006. Compare 'allunemp97' to 'allunemp06' for new variable: 'chunemp06'	97 __ __ __ __ __ __ __ __ 06 __	-1=got out of unemployment 0=stayed the same 1=became unemployed	2.74 95.70 1.56
health limits daily activities (from hllt) re-categorized to average status between 1997 and 2001: 'xill'	97 98 __ 00 01 02 03 __ 05 06 07	1=no limits 2=health limits some of the period 3=health limits the entire period	72.38 17.13 10.49
Change in health 1997-2001. Compare 'allill97' to 'allill01' for new variable: 'chill'	97 __ __ __ 01	-1=got well 0=stay the same 1=got sick	4.99 86.84 8.28
Change in health 2001-2006, new variable: 'chill2'			
Change in health 1997-2006. Compare 'allill97' to 'allill06' for new variable: challill06	97 __ __ __ __ __ __ __ __ 06 __	-1=got well 0=stay the same 1=got sick	4.98 84.29 10.76
average hours per week spent caring (from aidhrs) re-categorized to average status between 1997 and 2001: 'xaid'	97 98 99 00 01 02 03 04 05 06 07	0=no care hours in entire period 1=care some of the time 3=care 20hrs/week or more averaged over period	71.51 19.32 9.17
Change in care hours 1997-2001. Compare 'allcare97' to 'allcare01' for new variable: 'chaid'	97 __ __ __ 01	5 values with 82.24% staying the same	
Change in care hourse 2001-2006, new variable: 'chaid2'			
Change in care hours 1997-2006. Compare 'allcare97' to 'allcare06' for new variable: 'chaid06'	97 __ __ __ __ __ __ __ __ 06 __	5 values with 77.36% staying the same	

Other variables used

moved (from plnew) re-categorized to pick up any movement in the entire whole period post-opening survey to final welfare analysis in 2006/7 (data available in every year)	recode 'xmove9706' or 'xmove9807' or 'xmove9707' as applicable. e.g. xmove9706: 0=no 61.29 1=yes 38.71			
Geographical region (from region2) but excluding Northern Ireland for which little relevant data was available	North East	3.33	London	6.05
	North West	8.95	South East	10.23
	Yorkshire & Humber	6.90	South West	6.87
	East Midlands	6.31	Wales	18.22
	West Midlands	6.44	Scotland	19.94
	East of England	6.77		

Appendix 7B: Further robustness checks

Factors of potential influence on variables instrumental to welfare	Change in household income (units of £1) 5483 values, mean £4433	Change in own house -1, 0, 1	Change in unemployed (negative means to drop out of this group) -1, 0, 1	Change in ill health (negative means to improve) -1, 0, 1	Change in care hours (negative means less hours) -2, -1, 0, 1, 2	Change in university qualification 0, 1
Giving variables average 1997-2001						
volunteer	512.12	0.084	0.0685	0.0105	0.0331***	0.1166**
(never; irregular; regular)	[407.240]	[0.070]	[0.153]	[0.062]	[0.010]	[0.055]
active in organisations	852.64**	0.0024	-0.1624	-0.0457	0.0039	0.1546***
(never; irregular; regular)	[391.968]	[0.069]	[0.152]	[0.063]	[0.010]	[0.057]
host visitors	1,114.88**	0.3156***	-0.5536***	-0.1014	0.0137	-0.0315
(never; irregular; regular)	[448.817]	[0.079]	[0.202]	[0.074]	[0.012]	[0.069]
Fixed controls						
female	-1,967.3646***	0.2267*	-0.7128**	-0.039	-0.0026	0.2130**
(dummy)	[683.061]	[0.121]	[0.299]	[0.104]	[0.017]	[0.099]
white	-1,403.94	-0.353	-0.3062	-0.3751	-0.0066	0.4120*
(dummy)	[2,105.041]	[0.314]	[0.624]	[0.246]	[0.043]	[0.246]
age	-2,408.7550***	0.1907***	-0.5522***	0.2292***	0	-0.4522***
(7 categories)	[255.822]	[0.043]	[0.102]	[0.039]	[0.006]	[0.035]
15 personality variables also included to control for fixed affects						
Controls in 1997						
married	4,708.8846***	0.6545***	0.0797	0.0576	0.0925***	-0.1472
(dummy)	[663.703]	[0.109]	[0.291]	[0.105]	[0.016]	[0.110]
responsible for child	5,431.5200***	0.0094	0.1389	-0.0265	0.0163	-0.1626
(dummy)	[947.216]	[0.159]	[0.351]	[0.149]	[0.023]	[0.123]
in paid work	4,451.3813***	0.8559***	-0.4455	-0.6612***	0.0168	-0.8355***
(dummy)	[860.131]	[0.137]	[0.348]	[0.121]	[0.023]	[0.108]
No religion (1:religion;	335.0619	0.0679	-0.0469	-0.0994	-0.0273*	-0.1009
(2:part period; 3:none)	[682.228]	[0.119]	[0.280]	[0.108]	[0.016]	[0.099]
University qual.	10,948.9246***	0.4172**	-0.1074	-0.2368	-0.0218	-
(dummy)	[1,189.241]	[0.201]	[0.438]	[0.169]	[0.020]	-
no qualifications	-2,399.6213***	-0.4943***	0.502	0.022	0.01	-
(dummy)	[637.970]	[0.119]	[0.321]	[0.108]	[0.021]	-
annual hshold income	**-6,119.3956*** **	0.1344***	-0.2057*	-0.1128***	-0.0135***	0.0134
(in units of £10K)	**[400.570]**	[0.044]	[0.107]	[0.042]	[0.004]	[0.022]
wealth: own/mortgage	2,427.5244***	**-24.8093*** **	-0.7541***	-0.3531***	-0.0576***	0.2998***
house (dummy)	[787.720]	**[2.210]**	[0.276]	[0.117]	[0.022]	[0.116]
unemployed	-2,931.80	-0.1174	**-33.8593*** **	0.8840***	0.0137	-0.9595***
(dummy)	[2,500.558]	[0.393]	**[0.858]**	[0.336]	[0.064]	[0.361]
ill health limits activity	-1,345.17	-0.3947***	-0.4326	**-22.0768** **	0.0339	-0.7977***
(dummy)	[863.186]	[0.144]	[0.427]	**[0.074]**	[0.029]	[0.210]
hours spent caring	-924.2032	-0.0537	0.2917	0.1503	**-0.7174*** **	-0.1989
(none, <20hrs, >20hrs)	[617.945]	[0.096]	[0.256]	[0.094]	**[0.023]**	[0.127]
got married	4,698.2395***	0.5425***	-0.5507**	-0.1777	0.0620***	-0.5145***
	[1,073.711]	[0.169]	[0.254]	[0.177]	[0.021]	[0.145]
got responsible for kid	-2,113.6915*	0.1143	-0.4635	-0.1313	-0.0238	-0.2723*
	[1,282.546]	[0.219]	[0.481]	[0.214]	[0.028]	[0.157]
got work	5,290.7934***	0.6183***	-0.9978***	-0.6688***	-0.0162	-0.0602
	[892.656]	[0.154]	[0.307]	[0.134]	[0.023]	[0.120]
lost religion	148.0233	0.0551	-0.2104	-0.0948	0.008	-0.0102
	[796.299]	[0.131]	[0.301]	[0.122]	[0.019]	[0.111]
got uni qualification	4,898.8586**	0.394	-1.0265	-0.7029	0.0087	-
	[2,264.719]	[0.383]	[1.028]	[0.452]	[0.039]	-
remained unqualified	-1,502.52	0.0954	13.7663***	-0.7236	0.0027	-
	[4,027.450]	[0.494]	[0.472]	[0.538]	[0.092]	-
income increase £10K	-	0.2093***	-0.0453	-0.0241	-0.0107***	0.0101

	-	[0.041]	[0.074]	[0.033]	[0.003]	[0.013]
got own house	4,780.0529***	-	-0.1862	-0.0639	-0.0276	0.2936**
	[1,014.019]	-	[0.278]	[0.167]	[0.024]	[0.123]
got unemployed	-769.5913	0.1809	-	0.5930**	-0.0249	0.0036
	[2,350.963]	[0.335]	-	[0.276]	[0.054]	[0.274]
got ill	412.8723	-0.2892**	-0.1781	-	0.0118	-0.1121
	[814.173]	[0.136]	[0.342]	-	[0.025]	[0.172]
increase in care hours	-694.3336	-0.0697	0.0434	0.2179**	-	0.0262
	[598.443]	[0.091]	[0.260]	[0.088]	-	[0.119]
Observations	5,102	5,108	5,102	5,102	5,094	5,102
R-squared	0.261				0.331	

Robust standard errors in brackets *** p<0.01, ** p<0.05, * p<0.1

Appendix Table 7Bi: How giving affects changes in variables instrumental to welfare over 10 years

Factors of potential influence on welfare	Change life satisfaction over the period 1997-2006	Change in trust vs. 'can't be too careful' 1998-2007	Change in likes vs. dislikes neighbourhood 1997-2006	Change in crime perception 1997-2007 (positive means more crime)	Change in fear of walking alone at night 1997-2007 (positive means more fear)
Giving variables average 1997-2001					
volunteer	0.0282	0.0838***	0.2123**	-0.0008	-0.0633***
(never; irregular; regular)	[0.021]	[0.018]	[0.105]	[0.010]	[0.018]
active in organisations	-0.0007	0.0374**	0.2281**	0.0236**	-0.0286
(never; irregular; regular)	[0.022]	[0.019]	[0.101]	[0.011]	[0.018]
host visitors	0.0926***	0.0657***	0.3330***	-0.0281**	-0.026
(never; irregular; regular)	[0.028]	[0.022]	[0.110]	[0.013]	[0.022]
Initial welfare 1997/8					
Life satisfaction in 1997	**-0.6879*** **	-0.0207*	0.1144**	-0.0194***	0.0074
(7 values, low to high)	**[0.016]**	[0.011]	[0.054]	[0.007]	[0.011]
Trust in 1998	0.0313*	**-0.6073*** **	0.0903	-0.0165**	-0.0544***
(careful, depends, trust)	[0.016]	**[0.015]**	[0.078]	[0.007]	[0.013]
Like neighbourhood 1997	0.2269***	0.1733***	**-23.5924*** **	0.1372***	0.079
(no, yes)	[0.065]	[0.043]	**[0.243]**	[0.036]	[0.052]
crime-perception 1997	0.0122	-0.0405*	-0.5648***	**-0.6284*** **	0.0872***
(66 values low-high crime)	[0.029]	[0.023]	[0.117]	**[0.015]**	[0.025]
Fear walking alone in dark 97	0.0014	-0.0380**	-0.0143	0.0103	**-0.6626*** **
(4 values of increasing fear)	[0.019]	[0.015]	[0.080]	[0.009]	**[0.016]**
Fixed controls					
female	0.1071***	0.0058	0.3918**	-0.0291	0.3620***
(dummy)	[0.040]	[0.034]	[0.177]	[0.019]	[0.035]
white	-0.012	0.0735	0.1723	-0.0276	-0.1933**
(dummy)	[0.095]	[0.069]	[0.358]	[0.050]	[0.078]
age	0.0484***	0.0163	-0.1369**	-0.0287***	0.1291***
(7 categories)	[0.014]	[0.012]	[0.064]	[0.007]	[0.012]
15 personality variables also included to control for fixed affects					
Controls in 1997					
married	0.0143	-0.0136	-0.1117	0.0263	-0.0634**
(dummy)	[0.039]	[0.031]	[0.165]	[0.019]	[0.031]
responsible for child<16yrs	-0.1239**	-0.0525	-0.3962*	0.0618**	-0.1079**

(dummy)	[0.052]	[0.040]	[0.208]	[0.025]	[0.042]
in paid work	-0.0417	0.0064	-0.1375	0.0428*	-0.1960***
(dummy)	[0.046]	[0.038]	[0.194]	[0.023]	[0.040]
No religion (1:religious;	-0.0427	-0.0143	-0.0836	-0.0026	-0.0448
(2:part of period; 3:none)	[0.036]	[0.030]	[0.163]	[0.017]	[0.029]
Controls in 1997 that are in themselves indicative of welfare/instrumental to welfare					
University qualification	0.0395	0.2090***	0.0231	-0.0803***	-0.0866**
(dummy)	[0.047]	[0.041]	[0.265]	[0.022]	[0.038]
no qualifications	0.0358	-0.2114***	-0.055	0.0379*	0.0225
(dummy)	[0.045]	[0.034]	[0.173]	[0.021]	[0.036]
annual household income	0.0182*	0.0259***	0.0679	-0.0064	-0.0270***
(in units of £10K)	[0.010]	[0.009]	[0.063]	[0.005]	[0.008]
wealth: own or mortgage	0.0187	0.0645*	0.5225***	-0.1291***	-0.0179
house (dummy)	[0.047]	[0.035]	[0.176]	[0.024]	[0.038]
unemployed	-0.2172	-0.2998***	-0.9058*	0.0389	-0.1885
(dummy)	[0.166]	[0.101]	[0.486]	[0.080]	[0.129]
ill health limits activities	-0.4282***	-0.019	-0.2069	0.0053	0.1454***
(dummy)	[0.067]	[0.045]	[0.233]	[0.030]	[0.049]
hours spent caring	-0.1102**	-0.0446	0.2903**	0.0493**	0.0131
(none, <20hrs, >20hrs)	[0.044]	[0.029]	[0.147]	[0.021]	[0.034]
change in controls 1997-2001					
got married	0.0392	-0.0405	0.2388	-0.0025	0.0186
	[0.055]	[0.044]	[0.206]	[0.025]	[0.043]
got responsible for child	-0.0907	-0.0505	-0.5953**	0.0213	0.046
	[0.065]	[0.053]	[0.295]	[0.032]	[0.055]
got work	-0.0127	-0.0126	-0.0957	0.0078	-0.1621***
	[0.051]	[0.039]	[0.215]	[0.024]	[0.042]
lost religion	-0.0026	-0.0529	-0.1159	-0.0049	-0.002
	[0.041]	[0.033]	[0.178]	[0.020]	[0.033]
change in welfare controls 1997-2001					
got uni qual	0.1997**	0.0916	0.5019	-0.1022**	0.1881**
	[0.086]	[0.094]	[0.713]	[0.047]	[0.091]
remained unqualified	-0.0729	-0.3137	0.6419	-0.0742	0.225
	[0.216]	[0.202]	[0.830]	[0.094]	[0.170]
income increase £10K	0.004	0.0076	0.0726	-0.0057*	-0.0079
	[0.008]	[0.006]	[0.050]	[0.003]	[0.005]
got own house	-0.0029	0.0795*	0.1047	-0.1181***	-0.1442***
	[0.058]	[0.046]	[0.258]	[0.032]	[0.045]
got unemployed	-0.1213	-0.2112**	-0.3015	0.0607	-0.1651
	[0.143]	[0.088]	[0.475]	[0.066]	[0.111]
got ill	-0.3223***	-0.0013	-0.3580*	0.0137	0.1326***
	[0.059]	[0.041]	[0.198]	[0.026]	[0.045]
increase in care hours	-0.1178***	-0.0332	-0.1382	0.0367**	0.0323
	[0.040]	[0.028]	[0.141]	[0.018]	[0.031]
Observations	4,808	4,625	4,841	4,644	4,655
R^2 /Pseudo R^2	0.371	0.317		0.361	0.343

Robust standard errors in brackets *** p<0.01, ** p<0.05, * p<0.1

Appendix Table 7Bii: Factors influencing welfare changes including the influence of starting welfare

PART 3:

Conclusions

Chapter 8. **Summary of findings**

8.1 Overview

Interpersonal relationships matter to quality of life. This was the intuition recorded in the opinion survey of Chapter 1, it concurs with the literature review that follows, and it is borne out in the research of Part 2. On the one hand relationships with others constrain our behaviour and can make us vulnerable to exploitation or harmful usage by others. But on the other they open up opportunities, offer empowerment, improve productivity and even beyond these instrumental benefits, they bring great personal fulfilment. It would hardly be overstating the case to claim that relationships between people are the source of our greatest joys and achievements, whilst their dysfunction ushers in our greatest tragedies. Interacting with other people is an inescapable part of life in a crowded world, so relationships are not optional. More to the point is how we can minimise their negative aspects and maximize the positive.

This work has focussed particularly on civic sector relationships; those friend, family and community networks that characterise our living space. Measuring the prosocial, pro-cohesive aspects of these relationships is a pre-requisite to understanding them, knowing what affects them and putting measures in place that enable them to thrive.

I have suggested that a cohesive social environment will consist of people who manifest prosocial considerations for one another; a trait which will be reflected in the extent to which individuals in that social environment allocate time and money to other people or to a relational activity instead of spending exclusively on themselves. The way a person allocates her resources reveals her preferences, and thus 'giving behaviours' are reflective of 'prosocial considerations.' The literature review in Chapters 2 and 3 demonstrated that these prosocial considerations are dependent on a complex array of structural and cognitive social drivers which are specific to each individual. Prosocial attitudes, beliefs and values play a part, but so does the character of the wider social environment with its social ties, its normative pressures and incentives, its assurance that an other-centred initiative will not be abused and its positioning of each individual relative to the socio-economic status of others. The association between these drivers of giving and the quality of the wider social environment may be clearly discerned. Thus I propose that in monitoring easy-to-measure giving flows, we may learn something about its complex social drivers. Although my interpretation of civic sector interactions through the prism of giving flows is novel, we can see that there is broad support in the literature for the idea that giving reflects the existence of relationships that motivate a person to prosocial behaviour.

Section 3.4 outlined my hypothesis that individual prosocial motivations interact with the wider social environment to the benefit or detriment of social cohesion, and that the prosocial qualities of civic sector relations and their contribution to social cohesion might be evaluated by giving flows. The

interactions were summarised diagrammatically in Figs.3.3 and 3.4. Part 2 of the thesis then went on to test the model empirically.

8.2 Empirical findings

8.2.1 Giving depends on individual attitudes and the wider social environment

Chapter 4 began the empirical analysis using the Citizenship Survey of England and Wales to confirm that a mix of structural and cognitive social factors are associated with giving. Regression analysis revealed that the social environment (relative socio-economic status and social ties) was associated with multiple forms of giving as expected. Cognitive influences could not be identified in survey demographics however, so any influence they had must fall into the regression residuals. I was able to analyse these residuals in order to reveal a significant unobserved 'propensity to give' which is compatible with the existence of attitudinal influences. So then, giving behaviours (a willingness to give one's own time and money to others) appears to be associated with both the wider social environment *and* the attitudes of the individual.

Indications may be found within the literature that these dual components sustain one another: a cohesive social environment (proxied in trust) stimulates an individual inclination to give, and an individual inclination to give contributes to a positive wider social environment (see Chapter 3). I found nothing to negate this view in the dataset. I analysed the drivers of trust which, like giving, are associated with social cohesion. I found that in most cases, socio-economic factors associated with giving were also associated with trust; giving and trust went together. This suggests a self-sustaining cohesive social environment in which trust (based on the prosocial actions of others) and trustworthy behaviour (reflected in one's own giving contribution) are both in evidence. My analysis revealed however that the attitudinal component was associated with giving even when the wider social environment was unfavourable and the giver's trust consequently low. This implies that individuals have their own power to influence social cohesion; they are not just helpless products of their social environment, but can act in a pro or antisocial manner independently of their circumstances. This individual choice goes on to affect the social environment experienced by others.

Referring back to the model of Section 3.4 then, the analysis suggested that the wider social environment and the attitudes of the individual are distinct determinants of the way in which people relate to one another. These two elements may be interactive, yet both are able to effect a change in outcomes. The capacity individuals have to behave in ways that do not necessarily reflect the way in which they were treated is what enables individuals to be agents of change in terms of the levels of social cohesion, whether that change is for the better or worse. Moreover, the fact that several forms of giving were all influenced by the same drivers in tandem in this analysis suggests that easy-to-measure forms of giving may also be representative of less tangible forms of prosocial activity.

8.2.2 How the social environment affects 'giving' inclinations: experimental data

Figs.3.3 and 3.4 suggested that social cohesion is a product of the responses and counter-responses comprising the way people interact with one another. This cohesion depends on personal attitudes, but it also depends on the wider social environment. If this is the case, then it should be possible to modify social cohesion by changing certain structural parameters of an interaction. Moreover if prosocial, pro-cohesive attitudes are indeed reflected in giving behaviours, then we might expect any modification of relational parameters to be closely reflected in giving patterns. To test this hypothesis I ran a lab-experiment. A lab experiment also allows me to test whether the association between the social environment and giving is spurious; influenced not by one variable driving the other, but by some completely different variable that was omitted from consideration.

The experiment consisted of four treatment groups. All four groups underwent the same set of exercises, but two groups conducted their exercises in a closer relational environment and two in a more distant relational environment. Half of the subjects in each relational environment were further treated with an unannounced doubling in pay. At point of payment and exit, all participants were asked to complete a mood survey and were offered the option to give to charity. Thus the experiment established whether differences in the cohesiveness or 'proximity' of relationships can evoke or suppress a willingness to give to a completely unrelated cause. It was found that relational proximity had a significant impact on mood and on giving, whilst extra pay could not stimulate giving independently of a closer relational environment.

The experiment demonstrated firstly that prosocial inclinations which stimulate people to give could be systematically impacted by differences in the relational environment.[9] This means that prosocial preferences are not set in stone, but may be modified simply by changing a few social parameters like the ones used in the experiment. Since this is the case, then there is reason to pay these relational parameters more attention.

Secondly, the experiment showed that having extra money in a distant social environment did not stimulate any extra giving. Relational factors also had to be favourable before people would part with that money. Looking closer at the mood data and responses, it was possible to gain some insight into the mechanisms of this. In the context of closer relationships only, people were distressed by the money differentials (they became inequality averse), and their mitigating strategies evidently included giving. However when people did not feel close to others, this stimulus to give in an unequal

[9] The relational parameters used in the experiment were taken from Schluter and Lee (2009) and highlighted directness (moving from written communications to spoken, and from spoken to face-to-face wherever possible), multiplexity (creating opportunities to get to know a person in multiple contexts or roles), commonality (focussing on common goals and aspirations), parity (ensuring a fair balance of power in a relationship) and continuity (building on relationships over time).

environment was entirely absent. Distanced people were unmoved by the inequalities. In this way, although a potentially divisive, materialistic element like monetary gains for some and not for others might sometimes stimulate giving, we saw that the way giving behaviours reacted to inequality hinged on a combination of money *and relationships.* Without close relationships, having more money did not impact giving even in a *directionally* positive way.

The third and final point addresses the main research question of this thesis: whether or not it is possible to monitor giving behaviours as a proxy for civic sector pro-sociality; pro-sociality that partly depends on one's social environment. The experiment revealed that a willingness to donate was very responsive to changes in relational environment. Thus we find once again that easy-to-measure giving patterns provide useful information about complex relational parameters and their effect on prosocial attitudes.

So I have described pro-sociality in terms of a pro-active willingness to allocate resources in the interests of others, and suggest that this pro-sociality contributes to social cohesion. It was seen that pro-sociality depends partly on the attitudes and values of the individual, but that these attitudes are not fixed. They can be influenced by the pressures and incentives afforded by the wider social environment. My experiment affirmed this in that changes in relational parameters were found to impact the individual's inclinations to give right outside of the experiment. Thus giving is a proxy of pro-sociality, which we expect to be both affected by and contributory to cohesive, welfare enhancing relationships. The next chapter considered *which* types of giving are best associated with these cohesive, welfare enhancing relationships.

8.2.3 Which giving indicators best predict cohesive, welfare enhancing relationships

Chapter 6 contains an examination of Citizenship Survey data from England and Wales and Chapter 6a examines Understanding Society data from the UK. I was interested in the associations between different giving behaviours and a desirable socio-economic environment. This 'welfare' was assessed in terms of life-satisfaction, in terms of the respondents' trust levels (how they perceive the trustworthiness of others), in terms of neighbourhood crime and deprivation (a more communal welfare measure) and also in terms of income which is instrumental to welfare.

Regression analysis showed that giving behaviours were positively associated with all expressions of welfare, and the sort of giving that correlated best was giving that expressed the most consideration for others. Thus higher levels of giving, greater levels of commitment in giving, multiple forms of giving and less reward from giving were all correlated to the greatest levels of welfare. Moreover I found that regionally, a greater percentage of persons participating in giving were associated with significantly higher average welfare levels in that region.

The existence of prosocial preferences was best captured not by one particular form of giving, but by multi-dimensional giving that also crossed social boundaries. Thus my final 'giving indicator' included indications of time *and* money giving. It also included giving within *and* outside of one's close social circle; that is, informally to a family and friend network (for example hosting visitors) as well as more formally to groups and charities. The latter social interaction connects people from different social backgrounds who would be unlikely to meet except through the intermediation of a group. Giving outside of one's close social circle suggests that prosocial attitudes are more generalised; it is not the case that the attitudes apply only to one's immediate identity group and others are excluded.

Since the level of giving amongst people in prosocial, cohesive relationships tends to respond to need, it also seems appropriate that a measure of pro-sociality should focus particularly on whether or not people give rather than how much they give. As was explained in the introduction, this allows us to capture more of the prosocial element and less of the need element. To recap: Korenok *et al*. (2012) indicated in a lab experiment that the greater the dictator's endowment comparative to the endowment of the recipient, the more the dictator was willing to give. However, the same data revealed that roughly the same *proportion* of people were willing to make a donation whether inequalities were extreme or minor. This suggests that although inequality/need and ability might stimulate giving people to increase the sums they give, it does not necessarily affect who is a 'giver' willing to consider the interests of others and who is not. In a different study Payne and Smith (2014) analysed 'live' community data from Canada to find that whilst increasing inequality stimulated higher levels of giving, the extra giving came from fewer persons; the numbers of people participating in giving behaviours *decreased* with inequality (and the strain on relationships that it produced). So then, looking at whether or not people give is more important than the magnitude of their giving, since the former indicates the existence of a social tie but the latter is influenced also by need, and it is the nature of the social ties alone that we wish to identify.

My preferred criteria for identifying a giving person within a British context therefore included:

- Whether people gave at least 1% of their total expenditure to charity
- Whether people were involved in a group or organisation
- Whether people helped out in those groups or volunteered in the last year
- Whether people hosted non-household members for a drink or meal in their home in the past month.

It may also be of interest to find out whether any of these actions benefited someone from a different ethnic, religious, social or geographical group to the giver. Most of the questions cannot be asked directly however; they need to be broken down and to be sufficiently probing to detect exaggeration and also to avoid a giving behaviour being overlooked. Thus the surveys used did not simply ask, 'are

you involved in a group or club,' but probed which group or club the respondent was active in, category by category. Similarly, a question on volunteering may put people in mind of only the most formal contracts, but asking, linked to the 'groups' question, whether the respondent *helped* in the functioning of any of those groups may be more informative. Asking how much people gave to charity, when they gave, and putting this in the context of income or total expenditure is also more likely to offer accurate insights into charitable giving than a simple yes/no question on this behaviour.

Having established the best way of obtaining the giving data, I defined the 'giving' characteristics of individuals in one of three ways. Top level givers ticked all the boxes in terms of the whole range of identified giving behaviours. Bottom level givers ticked none of the boxes; they did not participate in any form of giving identified. People outside of these two categories fell into a category in between. Care was taken not to include so many 'giving' conditions that the 'giver' and 'non-giver' categories became smaller than 10% each of the total sample size however; I was not interested in measuring the impact of a few outliers.

Once I had defined givers, non-givers and those in between it became possible to assess how falling into one or another of these categories were associated welfare. My results showed that giving had a desirable and significant association with all expressions of welfare, and not giving had the opposite associations. Moreover the importance of this association was on a comparable scale to big social issues like unemployment, race, education, ill-health and low incomes.

Giving measures may be aggregated by determining what *percentage* of people in a region fall into the 'giver,' 'non-giver' and 'in between' categories. With an aggregated measure it becomes possible to rank the prosocial qualities of the civic sector in one region to that in another. Researchers interested in the civic qualities of a particular social group may look specifically at giving flows within, into and out from that group. I found that giving was better able to predict the average trust and deprivation outcomes for a region than any average incomes could. Giving measures capture an aspect of welfare that differs from the welfare generated by wealth.

The introductory chapters suggested that giving is so significant because it is indicative of a prosocial interaction between parties. It captures a pro-active element to these interactions which is distinct from the limitation of antisocial behaviours. This is not to say that antisocial behaviour should not be restricted; stable controls, sanctions and the 'right to punish' all provide people with an important basis on which to trust that they will not be taken advantage of (see Section 2.2.2). Indeed, simply knowing that retribution is *possible* often renders actual punishment unnecessary since the credible threat of retribution is sufficient to change the way people behave (Kolm and Ythier 2006). However, limiting negative social attributes does not automatically produce a prosocial response. For example the Citizenship data revealed that neighbourhood deprivation (including data on local health, crime and welfare benefit recipients) was reduced between 2004 and 2007 with particular success in the most

deprived regions. However this 'limitation of the bad' had no positive impact on giving behaviours in those regions compared to other regions. If anything, giving between 2007/8 and 2010/11 in those regions fell *more* than in other regions, and the rank order of deprivation remained unchanged. We see then that the *limitation* of negative social attributes was not enough to stimulate positive civic sector relations between people on its own. There is a pro-active, 'giving' element that has its own significant impact on quality of life. This finding concurs with Svendsen (2014), who describes how stable and effective controls cannot substitute for individual prosocial behaviour patterns when it comes to building a trusting (cohesive) society.

If the attitudinal side to giving has its own distinct significance, then giving should not only be reflective of one's social environment, but pro-sociality, reflected in giving, should also have a positive impact on welfare. This is the issue I examine in my last chapter of the empirical analysis.

8.2.4 Pro-sociality, reflected in giving, drives welfare

We could see from more than one data-set that giving is associated with welfare, and the lab experiment of Chapter 5 suggests that this association is not spurious. However, causality or the existence of an interaction between these two variables remains a question. And so finally I focused on the British Household Panel Survey data to see how giving behaviours interacted with social welfare outcomes over time. Again, welfare was assessed in terms of life-satisfaction, but also in terms of trust, crime-perception, liking for one's neighbourhood and fear of walking alone at night. These latter welfare indicators depend very much on the behaviour of people the respondent is surrounded by. We can also see if and how giving impacts incomes, wealth, health, education and other variables instrumental to welfare and yet used as controls.

I measured the changes in welfare experienced by individuals over a 10 year period. Giving behaviours in the first five years of that period were found to have a positive and significant association with the way welfare outcomes had changed by the end of the period, suggesting that giving behaviours (indicative of pro-sociality) are influencing welfare outcomes. Compared to people who sometimes give and sometimes do not, people who consistently gave became better off, and people who consistently did not give became worse off.

Although individuals are more inclined to give time and money to others in the context of a cohesive social environment then, we see that their choices also *influence* that social environment. And so begins a chain of reaction and counter-reaction between an individual's giving inclination and the pressures and incentives afforded by the wider social environment. The nature of the interaction dictates how social cohesion between people changes over time. For example a kind act in one time period may yield a kind return in the next. The actors are drawn together. Collaboration may continue or deepen, and the welfare of both actors improves.

In this analysis I measured the effects of giving within one's close social network (hosting visitors in the last month) separately from giving across social boundaries (taking time to attend organisations and to volunteer). I found that giving *within* social boundaries had the most consistent interaction with improvements to one's own welfare: the benefits are likely to have been directly reciprocated. However the *region* saw the higher welfare outcomes when a higher percentage of its inhabitants were giving *across* social boundaries. Positive externalities appeared to be greater, with giving outside of one's close social circle making the locality a better place to live for *others*. This point is best illustrated in the fact that engaging with groups appeared to increase, not decrease personal crime-perception. And yet I found that where people engaged with others anyway (especially with respect to volunteering), there was a strong and significant reduction in the average crime-perception of the *region*. Giving clearly had the power to change that welfare variable for others.

Giving via groups and charities is important to regional welfare because the organisations provide a connection between people who would not otherwise come together, thereby counteracting the fragmentation of society into polarized groups. Such organisations provide a vehicle through which civic sector cohesion can extend. We could see this even in our local survey of Berkshire (Zischka *et al.* 2014). When challenged as to what individuals might do for their community, almost all Berkshire respondents referred to involvement in a philanthropic organisation. People also mentioned informal help/neighbourliness and a desire to influence public policy and to start new initiatives, but formal, organised help was an indispensable ally. Respondents said that charities provide the connections through which people can be reached and resources can be channelled. Through them, encouragement, inspiration and ideas can also be received and passed on. The power to campaign and to mobilize the help of others can also be accrued by charities.

8.3 Modelling the civic sector drivers of social cohesion

Pulling together the big picture, we can model the civic sector relations which cause social cohesion to change over time as shown in Fig.8.1. The figure illustrates how the social environment directly affects individual prosocial attitudes and the inclination to factor other people into one's decision-making process. These prosocial attitudes, expressed in giving behaviours, go on to impact the wider social environment. The *altered* social environment *further* impacts attitudes, such that giving people become progressively better off than non-giving people. I am not suggesting then that giving instantly translates into welfare for the giver. There are time lags in the model and between each stage, and these lags make the analysis of each linkage meaningful. Thus giving in one time period begets a return in the next, and these feedback loops make society a progressively better place to live. It must be observed that whilst the social environment and prosocial preferences reinforce one another, they are also both subject to external shocks which can change the course of the interaction between people.

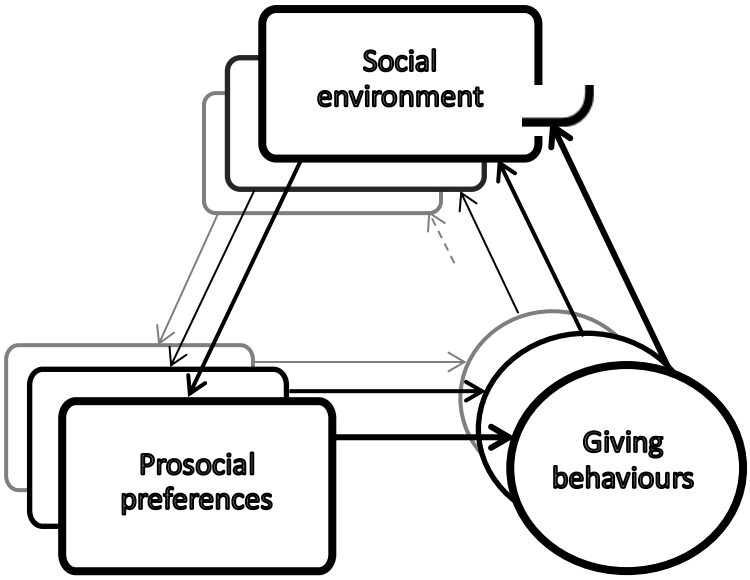


Fig.8.1 Model of the interactions which cause civic sector cohesion to change over time

This thesis highlights the importance of prosocial attitudes within the model; the willingness to factor the interests of other's into one's own decision-making process. Although these attitudes are to a large extent shaped by the wider social environment, the capacity to act independently of one's social environment is what enables individuals to be agents of social change, whether that change enhances or detracts from social cohesion. Prosocial, inclusive behaviour with all its associated 'quality of life' benefits can advance so long as the reactions and counter-reactions to treatment remain positive.

I have talked about minimising the negative aspects of relationship and maximising the positive aspects. Institutional reforms can assist with minimising the negatives, but it is in the hands of individuals to maximise the positives, pro-actively investing in others and linking across social boundaries. Knowing that the social environment has a direct impact on individual motivations however, it is also in the interests of every organisation, whatever its scope, to consider how its structural parameters are impacting the pro-sociality of human interaction.

8.3.1 Practical importance of this study

The World Bank Report (2000), having emphasised how important social relationships, networks and organisations are to a thriving community, concludes that "development institutions need to incorporate social and institutional analysis more prominently into … project preparation, and project monitoring" (p19). Likewise the Magenta book (HM Treasury 2011), knowing the importance of social variables to wellbeing, demands that all public policy undergo evaluations in terms of its social impact. Backer (2000) and Sen (1987) show that rigorous evaluation is key to designing policies and community interventions that are effective and appropriate.

This thesis attempts to provide a tool by which decision makers can measure the changing qualities of civic sector relations, such relations being universally acknowledged as an important factor in the success of any intervention[10], but being complex to assess. The work has proposed that insight into the quality of civic sector relations may be gained by monitoring giving behaviours, and the various chapters of this thesis have tested the efficacy of this proposal, discovering how giving both expresses and contributes to civic sector relations.

Giving measures are useful because they bypass the complexities of the relationship itself, and focus instead on the tangible resources that are flowing because of that relationship. Giving then is a barometer of how prosocial the civic sector is. It not only reveals the existence of relationships, but it *reveals the existence of relationships which bring people to act in a prosocial manner.* Thus the measure uniquely reveals how the civic sector (as opposed to the state or market sector) is contributing to social cohesion. This social aspect provides information that *differs* from the information provided by income predictors of welfare, and is more prescriptive than measures provided by life-satisfaction questions (see Chapter 1).

Thus it may be helpful for NGO's and governments to design their programmes with questions in mind such as such as (1) Does the programme stimulate people to give? (to spend more time with one another and to meet one another's needs) and (2) Are new people being brought into giving networks because of the project? Questions like these represent measurable goals and outcomes. Measuring the quality of the civic sector by giving has practical advantages in that:

- Giving questions are behavioural, not opinion based, which makes the data more credible and simpler to correctly collect, quantify and assess.
- Measuring civic sector relations before a project begins reveals a community's strengths and weaknesses. Knowing these strengths and weaknesses will help to ensure an appropriate project design (more external controls being necessary where local civic structures are weak).

[10] See Chapter 2: people who are part of mutually beneficial and supportive relationships are better able to collaborate, and via collaboration, they become more powerful and more productive. In terms of the significance of civic sector relations to development institutions, any attempt by external agencies to engineer collaborative structures has had poor success *unless* solidarity was pre-existent (Adhikari and Goldey 2010; Vajja and White 2008; Portes and Landolt 2000). Where opportunistic behaviours are unconstrained by stable and effective institutions, such inclinations are found to lead to the disintegration of trust and cooperation to everyone's disadvantage (Grant 2001; Grugerty and Kremer 2002; The World Bank 2000; Woolcock and Narayan 2000; Dasgupta 2009; El-Said and Harrigan 2009). Even the welfare benefits of GDP increases are dependent on people being networked in trusting relationships with others: without the relationships, the pros of extra income can be outweighed by the negatives associated with increasing materialism and social comparisons, but civic sector relationships help to mitigate these negative effects (Piekalkiewicz 2016).

- By assessing whether giving behaviours are changing in response to a project, it is possible to gain information on the social appropriateness and effectiveness of a programme. This information affirms the added value (or not) of a particular programme. Over time, the knowledge gained will also affect programme design so as to maximize the protection to community cohesion.
- Many organisations have been reluctant to carry out project impact evaluations because of the expense, limited technical knowhow resulting in poor quality data, and political sensitivities if the results are negative (Backer 2000). This tool will aid self-evaluation using the right information and methods such that future projects can be better designed and so as to raise the credibility of the development institution in the eyes of donors.
- Since development goals are best approved by all stakeholders (Sen 1987), discussing 'giving' as well as 'getting' can send far reaching behaviour signals to a community, affirming those behaviours that enhance collaboration.

Chapter 9. **Implications of this study and speculations for further research**

9.1 Potential caveats for further exploration

This study is based on UK data, and within the UK, giving in which giving to and via charities is relatively common. Measuring giving in other countries may require different indicators of giving however. It is beyond the scope of this study to predict how applicable giving measures are, worldwide, as indicators of civic sector pro-sociality and predictors of welfare. The very rawest of evidence is mixed.

In terms of personal life-satisfaction, worldwide data collected in the Gallup World Poll does reveal a statistically significant association between giving and life-satisfaction across the 146 countries surveyed (see the analysis carried out by CAF 2010; Drösser 2010). The 'giving' data referred to the percentage of persons in a country who gave to charity, volunteered or helped a stranger in the last month (see description in Section 3.1). Moreover CAF (2010) claims that the link between 'giving' and 'happiness' is stronger than the link between 'wealth' and 'happiness.' The same Gallup data is replicated in Table 9.1 from a study by English and Ray (2011). It also illustrates the association between average giving and average wellbeing.

	Thriving	Struggling	Suffering
Helped a stranger	53%	45%	32%
Donated money	41%	27%	16%
Volunteered time	25%	17%	10%
Mean giving score	40	30	20

Based on 130 countries surveyed between 2009 and 2010
Population projected weights used for this analysis

Table 9.1 Wellbeing and giving. Source: English and Ray (2011)

A worldwide correlation between giving and happiness may be discerned then, but the raw world data reveals no equivalent correlation between giving and *trust*. Within OECD countries the link is evident (see Fig.9.1) but not worldwide.

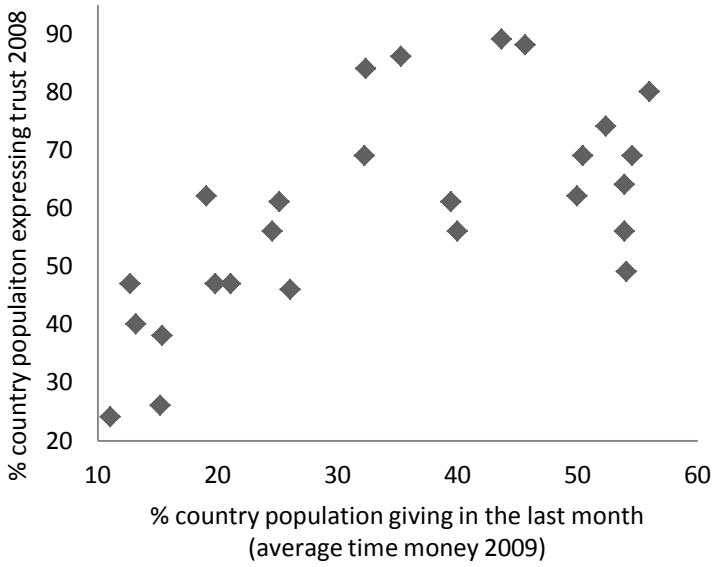


Fig.9.1 The correlation between giving and trust in OECD countries

Trust data is taken from the 2008 European Social Survey and the 2007 Social Survey Programme and is reported online in the OECD i-library. Data on the proportion of the population giving time and the proportion giving money in the last month (percentages subsequently averaged) comes from the 2009 Gallup World Poll and is reported online by 'nationmaster'.

The analysis covered 26 OECD countries, not including the 2010 entrants (Chile, Estonia and Israel) and not including Canada and Italy (trust data missing) or Luxemburg and Iceland (giving data missing).

Perhaps worldwide giving data is not associated with trust because trust is so heavily influenced by relationships within the market and state sectors. We can see these influences in the (readily available) OECD data. For example the correlation between government social expenditure per head and trust is 0.75; between equality and trust it is 0.76; between corruption and trust, 0.66; between average income and trust, 0.74 (all calculated from OECD i-library data, see sources in Appendix 9A and visual representations in Appendix 9B). The strength of these correlations suggests that the state and market sectors as well as the civic sector interact with trust. Perhaps these differences are so extreme between countries that there is no fair basis for comparison from which to measure the impact of giving. Having said that, we also find within the OECD data that government social expenditure per head, equality, low corruption and average incomes each have a positive correlation with average giving also (see visual representations in Appendix 9C).

Overall then, we see that there may be some application of these UK findings to countries and cultures outside of the UK, but the extent of its relevance is a question for further research. Pro-sociality, defined by the way an individual allocates her resources, is likely to be of importance everywhere, but it may be that different indicators of this pro-sociality are appropriate to different cultures. For example in sharing cultures where 'mine' and 'yours' are less clearly defined, the balance of resource use by one or another party may still reflect a more or less prosocial connection, but without being

expressed through the medium of giving. We are also reminded that 'giving' measures are only appropriate as a proxy for pro-sociality within the civic sector, and cannot account for pro-sociality in the state and market sectors which are far-reaching aspects of social capital.[11]

Another potential limitation to this approach is the issue of giving for the sake of a strategic private agenda, giving with strings attached, or giving which fosters dependency, none of which is helpful to the 'beneficiary' or reflective of constructive relationships. This is a problem most commonly cited in the context of the giving of aid by one government to another rather than civic sector giving, but the problem is not exclusive to the state sector. In Section 3.2.2 where these problems were mentioned I said that even people who give for 'bad' reasons are prompted to do so by a social environment which values giving, and this social pressure is of value to society. The issue of negative motivation may also be mitigated by checking if the giver gives in multiple ways, not just in the particular direction from which they expect a return.

But even after taking these things into account, the 'inappropriate giving' problem offers grounds for further question. It is consideration for the *other* person which is beneficial to society, and any giving that expresses this must be in response to good communication. What does the recipient think of the givers inputs? Is she enabled by them to forward her personal vision? And does *that* vision include a considerate attitude towards others? It is not enough to give only what the giver wants instead of what the recipient feels a need for. Any commendation of private philanthropy should not lose sight of the fact that giving is only valuable insofar as it represents positive civic sector relationships *behind* that giving.

9.2 Implications of this study and points of departure

We have seen that how people use their resources reveals information about their preferences, with multidirectional giving revealing a prosocial inclination towards others. I have used this phenomenon to examine civic sector contributions to social cohesion; more cohesive relationships depending partly on an individual willingness to give, exchange or share resources. The level of consideration that one person exhibits towards another in their resource allocation decisions was found to interact with the health of the wider social environment: they influence one another. Thus pro-sociality, a product of structural and cognitive drivers, can be measured in giving flows and contributes to social cohesion and to the welfare gains that are associated with it.

[11] Measures of equality in the overall distribution of resources may be useful, but this provides us with different information than that provided by giving flows. The fact that giving cannot be enforced under contract offers us particular insight into the *relational and attitudinal* factors which motivate individual behaviours; motivations which we have seen are important to the welfare of society.

The implications for welfare are highly significant, especially when compared to the welfare impact of higher incomes. Chapter 1 noted how the pursuit of wealth beyond a certain point has an ambiguous effect on the wellbeing of a society, and yet continues to be pursued because of the short term 'buzz' it offers/ disappointment it avoids and the struggle to avoid being the persons left at the bottom of the heap. Civic sector relationships have a broader and more lasting effect on communal welfare however. Part 2 of the thesis revealed that being part of giving networks in Britain tended to have a greater impact on welfare in the long term than thousands, even tens of thousands of pounds of extra household income per year. Indeed, insofar as trust was concerned, Section 6a.4 showed that the British population sampled were better off when in the lowest income decile but giving (connected to giving networks) than they were in the highest income decile but not giving (not connected to giving networks). Not that high incomes and giving are incompatible. The data in Chapters 6, 6a and 7 found that people involved in multi-dimensional giving were thousands of pounds better off financially as well, besides being happier and contributing towards neighbourhoods that were more trustworthy, less deprived, and generally more pleasant to live in. Moreover Piekalkiewicz (2016) has shown that positive relationships can offset some of the negative consequences of wealth creation such as social comparisons.

Since relationships, expressed in giving, are so important to welfare, it makes sense for policy makers to value and to promote understanding of the value of the underlying relationships, and to work on the institutions, networks and common interests which inspire people to take others into consideration and to behave in ways that draw society together. This focus is more fruitful in terms of increasing welfare than attempts to continuously increase consumption per head, and it is also more environmentally sustainable.

Key to a change in focus is to get the indicators of welfare right. Unless the correct contributors to welfare are measured, they will not get the attention they deserve in development efforts (Waring 1989). For this reason giving indicators are useful. Firstly they reveal the social strengths and weaknesses of a community. Secondly, in monitoring giving pre and post any programme, it is possible to measure the impact of that programme on civic sector health. And thirdly, giving indicators shift the focus of attention from extraction out of society to investment into it.

The Charities Aid Foundation reported in 2012 a decline in every aspect of private philanthropy over the period of their records (i.e. over five years, 2007-2011). Regarding the US, Putnam (2000) claims that private philanthropy as a percentage of national income has been falling slowly but steadily since the 1960's. Likewise Cowley *et al*. (2011) using UK data from the Living Costs and Food Survey (formerly the Family Expenditure survey) show that the proportion of households giving to charity in a two-week period has declined steadily (although at a diminishing level) since records began in the 1970's (32% in 1978, 27% 30 years later). This is despite the fact that average donations per week have risen, so that aggregated giving as a proportion of household income has remained stable.

Knowing the implications that a declining participation in giving may have regarding the state of the civic sector and its contribution to social cohesion, this trend is cause for concern and action.

There are two major points to take away from this report then: (1) Welfare may be improved by directing attention to the underlying relationships; and (2) measuring multi-dimensional giving provides an indicator of civic sector pro-social/pro-cohesive inclination. Sections 9.2.1 to 9.2.3 speculate on potential implications arising from these two points.

9.2.1 Recognizing the importance of the underlying relationships

The improvement of relationships is a way of life, not just an add-on. For real effectiveness it becomes an integral part of the way people conduct themselves not only in the civic sector but also in the state and market sectors. How we treat family, friends and neighbours is important, but training and awareness of how relational thinking can improve our collaboration has also been applied in organisations like schools, hospitals, prisons, charities, development agencies and businesses (see for example the cliental of Relational Analytics n.d.).

This leads us into the realm of big ideas and some interesting speculation regarding the development of society. The pro-market political right values self-determination and the energizing drive that freedom to pursue one's own interest brings. The free market provides a framework within which millions of individuals can choose to interact in ways which suit each one the best. The decisions that individuals make act on prices to send just the right signals by which to match feasibility with desire, and thus each person is enabled to make the best of what they have, given what everyone else has. A perfectly functioning market gives out what you put in with complete impartiality, and in this sense is phenomenally efficient and motivating. No other system has proven to be more efficient at wealth creation.

However the pro-state political left point out that the *distribution* of that wealth under such systems becomes inexorably more unequal. Not as an intentional and preconceived plan, but as the inevitable result of a system in which, in the course of maximizing their advantage, the powerful have the ability to accrue and the weak end up at their mercy. Money is power, and without it, the weak are included in a system that can crush them (Du Toit 2004; Callinicos 1983). Fig.9.2 shows just how polarized global wealth distribution has become. In the last decade, the wealthiest 1% of individuals in the world had the same amount of income as poorest 56% (Ortiz and Cummins 2011).

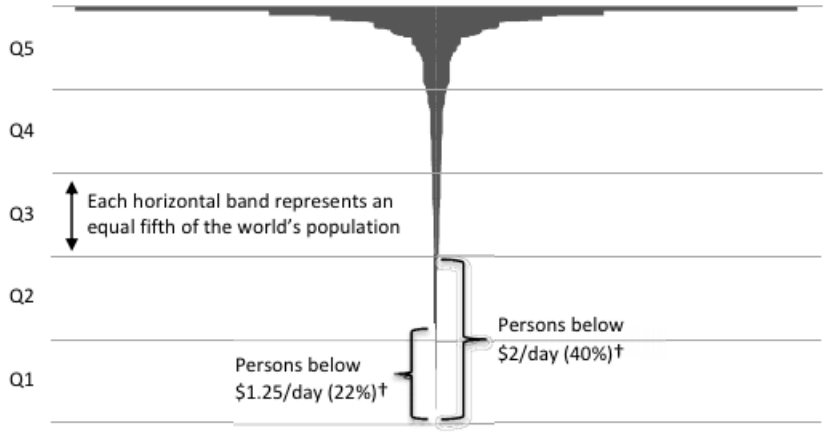


Fig.9.2 Global income distribution

Global income distributed by percentiles of the population in 2007 (or latest available data) in PPP constant 2005 international dollars. Source: Ortiz and Cummins (2011) using figures from the World Bank (2011), UNU-WIDER (2008) and Eurostat (2011)

So it is that the political left emphasises the need for a more controlled maximization of welfare for society as a whole, rather than leaving individuals to each maximize their own wealth. Their primary strategy is to centralise production and distribution. At the extreme, Marx believed that changing the social environment changes the person. By redistribution and market intervention, an individualist prepared to gain at another's expense becomes a socialist willing to work for the good of the whole (Callinicos 1983).

The social environment *does* shape our private perceptions and decisions (Kolm and Ythier 2006; Wilkinson and Pickett 2009), but the experience of centrally planned economies proves that a change of institutions does not transform individuals from self-centred to other-centred. Rules fail to extract good outcomes from groups who for some reason resist their dictates, and thus cooperation *cannot* be achieved by force, even when the outcome appears to be better for everyone. Articles by Putterman (2006), by Rotemberg (2006) and by Fong *et al*. (2006) prove this in the workplace, and Adhikari and Goldey (2010) and Vajja and White (2008) show it through failed development programmes. One problem is that rules encroach on personal liberties, inhibiting efficiency as people lose control over the product of their own efforts. Suppressing individual pursuits for the sake of the whole via institutional change ultimately tends to result in subversion of law and demotivation of the workforce. Moreover the coercive interplay between the powerful and the weak is not eradicated, it just expresses itself in different ways.

The importance of individual freedoms in pursuing their own private objectives is clear then, but this will degenerate into a polarized society unless those individuals are willing, aided rather than coerced by the state, to use their freedoms with consideration for the impact their choices have on others. Stable and effective institutions are one important element to achieving this, but there is more to it

than limiting the antisocial behaviour; there must also be an advance of prosocial behaviour. In this we perceive a personal, relational issue; the domain of the civic sector. Advocates of the free market have been accused of missing this civic aspect because their economic theory is based solely on the presupposition of individual self-interest, and also because the market undervalues everything that cannot be reduced to monetary terms. Advocates of state intervention are likewise accused of distancing relationships as they divide contributors from beneficiaries within a system, stifling individual prosocial initiatives with inflexible and faceless centralised institutions, and this even in the domain of social work where the *way* things are done matters at least as much as *what* is done.

One reason for downplaying the personal touch is the risk attached; informal relationships expose people to the risk of getting hurt, whilst relationships within the state and market sector can be better controlled since they are backed up by formal contracts. The civic sector does not cease to exist just because of its risks however, and there is an increasing recognition that its cohesion is an essential complement to market and state sector activities. For example it is now well established in the behavioural economics literature that the maximization of private advantage is by no means the only criteria for decision making, even in the sphere of the market. A mix of enlightened self-interest (knowing the benefits of reciprocal generosity), altruism (valuing others in their own right), the ability to team-think (maximizing 'our' good rather than 'my' good), and the constraints or expectations of what other people are going to do (reinforced by rules and sanctions) all work together to counterbalance self-interest and bring people to choose outcomes that are not based on the maximization of private interests alone (Kolm and Ythier 2006; Gui and Sugden 2010; Ariely 2008). Moreover the social capital literature has established that relational networks specific to individuals and groups, and the norms of behaviour exercised through those connections essentially affect a community's ability to trust, to collaborate, to transact and to thrive (Coleman 1988; Putnam 1993, 2000; World Bank 2000; Krishna 2002; Grootaert and Van Bastelaer 2002; Halpern 2005). There is also recognition that these relational factors cannot simply be left to take care of themselves. Paying attention only to materialistic considerations tends to squeeze them out, such that day-to-day decisions assume an ever more individualistic character and people are no longer willing to sacrifice their personal interests for the good of the whole (Bowles 2008; Frey and Oberholzer-Gee 1997; Ariely 2008; Sacco *et al.* 2006 and Fehr and Schmidt 2006). Force was likewise found to undermine goodwill. Rather than ignoring the role of civic sector relationships then, we should rather be seeking to minimise the negative aspects of relationship and maximise the positives. It helps to assess weaknesses and mitigate them, and to learn how to recover damaged relationships where appropriate.

A more people-oriented approach has been conceptualized by Amartya Sen in his 'capabilities framework.' He defines development as the 'capability' (freedom, ability, resources, enablement… whatever it takes) to pursue one's own personal objective, but adds the obligation that one's own pursuits should not to infringe on other people's rights, and also the obligation to defend those whose

rights are being infringed. Inevitably when in competition for scarce resources, one person's objective is going to come into conflict with another person's objective. The criteria by which to decide between competing claims is not always obvious, but in order to exclude the least fair abuses, Sen recommends public scrutiny to check that the right claim is being upheld subject to the priorities generally agreed in that particular time and place (Sen 2009).

The approach values individual choice and freedoms but without reducing them to self-centred, materialistic ambitions. Likewise the approach acknowledges the importance of inter-personal negotiation and rule making whilst recognizing the need for personal and egalitarian connection to that decision-making system so as to avoid the negative consequences accompanying the use of force. 'Improving individual capabilities' puts us in mind of a useful goal, and yet 'avoiding the infringement of freedoms' is an elusive policy objective. As soon as authors like Nussbaum try to establish some rights to defend, Sen argues that the richness of the perspective is lost to reductionist guidelines (Sen 2005). Moreover reason and broader based decision-making are insufficient to overcome the tension between fairness and self-interest. The fact is that the powerful (who make the rules) do better out of unfair systems than fair ones, and it is irrational for them to alter a stable system that favours their own interests above those of others (Kanbur 2010; Acemoglu *et al.* 2004).[12] It is because of this tension between fairness and self-interest that Sen acknowledges the existence of undefined 'relational motivations' that make his whole framework practicable.

It is these civic sector relations that are the focus of this thesis. Since a resilient, thriving society requires that individualistic pursuits are kept in balance with consideration for the effect those pursuits have on others, the pro-sociality (willingness to act with consideration) of the civic sector is of vital importance, and interventions in this area offer a huge field of opportunity for government policy makers, development agents, non-governmental organisations and individuals.

9.2.2 Improving relationships

The question of how to improve relationships can be likened to the question of how to make money: There are endless possibilities and it all depends on the context. This is not to suggest that there are no useful principles and guidelines, but it exceeds the scope of this thesis to do more than mention a few in passing. It is useful at this point to refer again to links between giving behaviours and social cohesion first shown in Fig.3.3, and replicated again here as Fig.9.3. The model highlights all the drivers of giving, each of will eventually have some feedback influence on social cohesion.

[12] And why refer only to anonymous power figures: Despite our finely honed sense of fair play, most of us would not pass up a little extra for ourselves simply because we know the rest are not getting the same opportunity, and it is a fine line between this and accepting a little extra even if others have a little less because of it, especially when we do not even know who those 'others' are or whether our choices will improve their lot anyway.

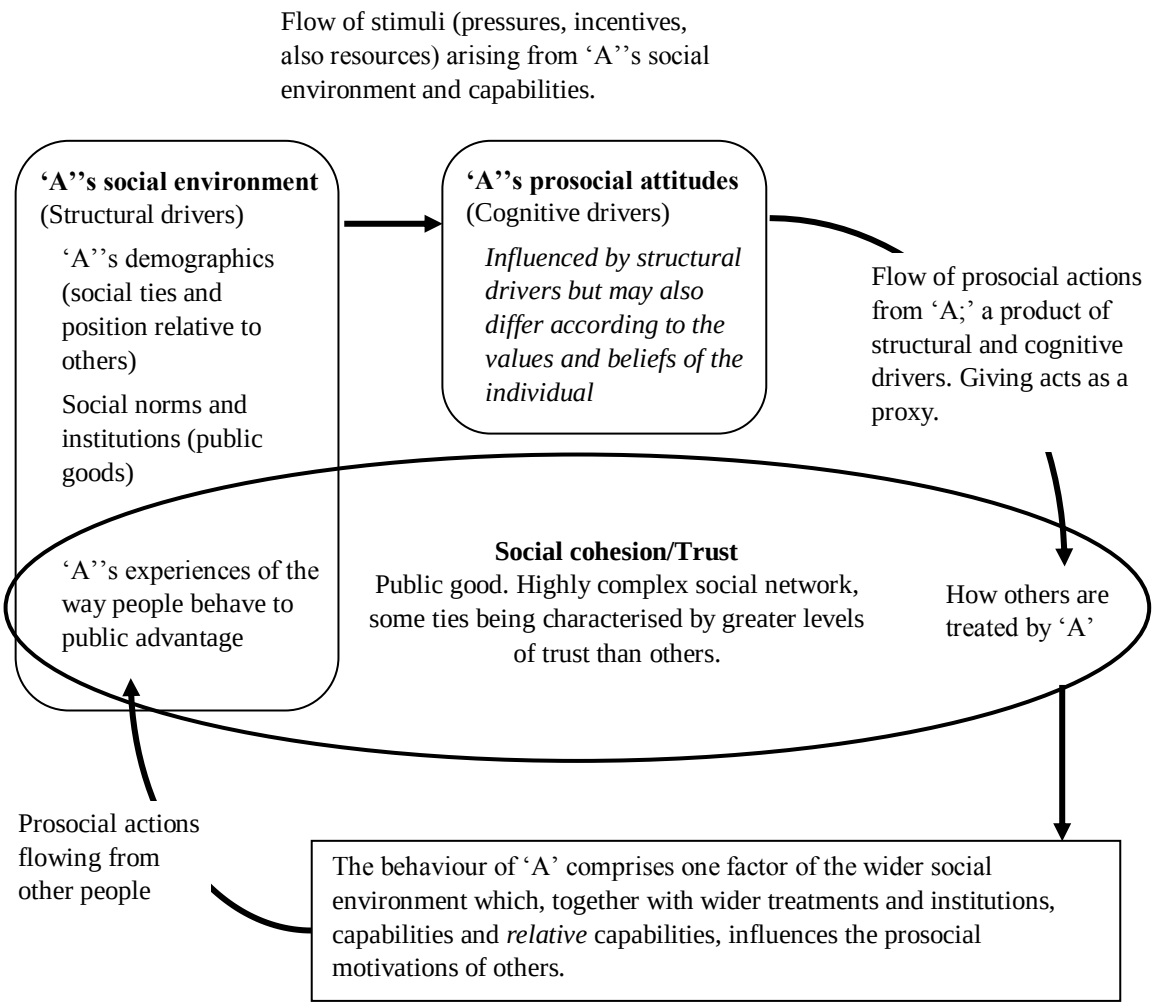


Fig.9.3: Factors associated with changing social cohesion over time

Treatments from other parties, social norms and institutions, connections with others and socio-economic positioning relative to others, one's beliefs, values and worldview… all these factors are malleable, they all influence the prosocial behaviour of an individual, and from there it has been demonstrated that they all eventually influence the state of social cohesion.

Regarding the way people treat one another, Schluter and Lee's adjustable parameters outlined in Chapter 5's lab experiment could be useful points of departure: maintaining direct lines of communication; focussing on common interests; knowing people on multiple levels and in multiple roles and maintaining the relationship over time.

Ensuring a fair balance of power in a relationship is essential. This brings in the issue of resource distribution and equal access to opportunity. It also assumes transparency, accountability, and connection. The actions of leaders and pivotal persons within a social network are key in influencing the welfare and actions of its members; leaders impact followers (Krishna 2002). Sustained physical

insecurity, instability and financial stresses foster opportunistic behaviour which damages relationships, and should be avoided (Grant 2001; World Bank 2000). Religion and education were confirmed in this analysis to be key drivers of 'giving' relationships: people's morals, values and enlightenment affect how other-centred they are whilst education also aids the capacity for and experience of efficient organisation. Intermediaries like charities may help to extend the reaches of solidarity. Charities should therefore be recognized, listened to, resourced and enabled to do their job of connecting people and meeting needs (requests mentioned by charities in Berkshire (Zischka *et al.* 2014)). The Cambridge pro-sociality and wellbeing lab suggests that improving relationships requires prosocial motivations, sacrifice and appreciation of one another (cpwlab n.d.). These are pro-active, personal actions that complement institutional rules and sanctions to constrain antisocial behaviour; the active prosocial behaviours and the constraint of antisocial behaviours both having their own role to play. Being involved seems to be more important than what exactly is done.

It is hardly possible to overemphasise the importance of generalised social attitudes. Are people who give into the lives of others appreciated, or not-so-secretly despised as suckers? Has our pursuit of the 'material' gone so far that we deny even the existence of 'Goodness,' taking every kind impulse as inspired by ulterior motivations simply by default? People conform to expectations and respond to shame, and so the way giving is perceived will affect our willingness to give. The relational impact of what we collectively value then is huge.

This being the case, then even this step of 'focussing minds' on giving into society rather than extraction from it makes it more likely that people will factor relationships and giving into to their decision making process. Just as an individualistic worldview fosters individualism (Bowles 2008), so a worldview that values and emphasises considerate behaviour and its tangible benefits is likely to nudge us into being more considerate. Humans have this unique capacity not only to adapt to reality, but to *change* that reality through our values, systems and institutions. We can change from materialistic pursuits with its advertising, inequality and social comparisons to focus on relationships, the environment and health. What society values as good, normal and acceptable for us to do will affect what we do and the outcomes we enjoy. In this sense, 'giving' measures of pro-sociality and its contribution to social cohesion are prescriptive. They highlight the importance of a behaviour form which healthy relationships and their associated benefits require.

Moreover focussing attention on giving may in itself put people in mind of what they could do for others or for their community. Thaler and Sunstein (2008) and Ariely (2009) show that in order to process information quickly, humans tend to be guided by rough frameworks of understanding rather than thinking each decision through rationally. Thus to constantly ask questions and report about giving as a key asset to society is to 'nudge' us into thinking that maybe we should be doing more of it.

The social environment, what other people do and think, also motivates us under the principle of reciprocity. People who have been treated well tend to respond in kind. This is an almost universally recognised principle. If you receive a favour there is a moral obligation to return that favour. This reciprocation can also be generalized, such that one may receive from one person but give to another (Kolm and Ythier 2006; Dasgupta 2009). And so it follows that people who have done well within a society often voice a sense of obligation to give something back.

Such motivations were reported again and again by Handy and Handy (2007) and Lloyd (2004), both interviewing successful money makers turned philanthropists. The desire to give something back to the society that helped them succeed was not the only motivation mentioned by these philanthropists however. They also reported a sense of duty and responsibility towards the less fortunate. And crucially, they also needed to believe in the cause; that what they are doing was actually of value in achieving their vision for a better society. Besides these motivations, philanthropists also mentioned a sense of personal development and satisfaction in giving, and enjoyment at the interaction it brought them into with others.

So during the course of this thesis I have mentioned a variety of motivations to give, none of which are practiced exclusively and all the time. There are those who give only when they anticipate a direct personal advantage to doing so. Then there are those who give without any direct return, but where they are assured that others are behaving in a similar way, then they are likely to experience some return sooner or later from the altogether more pleasant social environment. And finally, some of our giving is entirely for the benefit of the other person, just because that other person has value in him or herself. This kind of giving ties back to the discussion on 'intrinsic motivations' in Section 1.5.2. Other people matter not only because they can provide some good for me, but because they are worth investing in for themselves.

Although this thesis focusses a lot on the instrumental value of cohesive relationships to one's own welfare then, it should not be overlooked that the greatest potential associated with giving into the lives of others is only seen when people pursue this for the *other* person's sake. Just like the virtues, if pursued in order to feel good these pursuits are unlikely to yield their full joy, but if pursued for their *own sake* then joy often appears as a side-effect. A life lived in pursuit of happiness may end up being a shallow one, but to invest in people is to invest into an area of enduring value. And it is this sort of giving that potentially changes society from one equilibrium state of reciprocation to another. Reciprocation can only take us so far, since it cuts both ways and can easily peter out or degenerate into an exchange of hostilities. An undeserved gift or act of mercy on the other hand overcomes a negative cycle of reciprocation and opens up the option of a whole new pathway. A non-academic book by Dirks (2000) gives multiple case-studies of how the receipt of an entirely altruistic input redirected those persons' behaviour patterns towards others. The book by no means contradicts academia however. A paper by Kosse *et al.* (2016) shows that whilst children from underprivileged

backgrounds with reduced mother-child interaction tended to act less pro-socially in a dictator game, intervention in which a volunteer gave them one afternoon a week quality one to one time changed their thought processes such that their pro-sociality afterwards matched that of privileged children. The effects were also persistent. Two years after the end of the intervention, their prosocial responses still matched that of privileged children, whilst the responses of underprivileged children in a control group had fallen far behind. Recognizing and valuing the impact of prosocial, giving behaviours then on the way that others subsequently behave is a pre-requisite to accessing their unique contribution to welfare.

9.2.3 Measuring giving patterns as an indicator of pro-sociality

This thesis has linked the literature on interpersonal relationships to the literature on giving in search of a better way to account for civic sector pro-sociality and its contribution to social cohesion and to welfare. Giving is uniquely reflective of prosocial considerations and a positive informal interaction between people. By measuring whether or not people give and who they give to then, we obtain a proxy for pro-sociality. The measure bypasses many complexities by targeting the flow that arises from the social drivers rather than trying to untangle the complex stock itself.

Our work showed that giving within social boundaries and across social boundaries both made a significant contribution to welfare; both forms of relational tie are necessary to a cohesive society. Close relationships tended to be more directly reciprocal and provided the most immediate benefit to the individual, whilst linking across social boundaries is important for wider social cohesion, counteracting the fragmentation of society into polarized groups. Most people who gave across social boundaries also gave within them however, suggesting that a solid foundation of close relational ties provides a secure base from which people can launch into riskier social connections. This was seen in all survey data-bases, and also in the lab experiment where proximity created within the experimental group led directly on to prosocial attitudes expressed towards outsiders also.

Trying to prevent segregation into ‘different’ communities might not necessarily be the most effective way to increase social cohesion then. There is *value* in having people embedded in a group they can closely identify with, and estranging them from those in-group relationships does not automatically strengthen the wider ties. But neither is social cohesion achieved if a person’s relational ties extend only so far as one’s own social group; forging positive links between *differing* groups is an important element to emphasise. In terms of linking civic sector pro-sociality to social cohesion then, we need to ask people about their giving patterns inside *and* outside of their social boundaries.

A broad adoption of appropriate questions on giving into wider surveys and reports will provide more data by which to understand the pro-sociality of different communities, and a better basis for target setting and policy adjustment. This is in-keeping with the requirements of the Magenta Book (HM

Treasury 2011), which states that all public policy must undergo evaluation in terms of its social impact. By developing and using a giving index and by monitoring the way giving patterns change over time it becomes possible to evaluate which practices damage civic sector pro-sociality and which enhance it. The winners and losers in any socio-economic shift can also be identified. This is information that can usefully inform our life choices.

Appendix 9A: Data sources for OECD country analysis

OECD i-library data sources

- Main list of statistical tables: http://www.oecd-ilibrary.org/statistics
- Trust data: http://www.oecd-ilibrary.org/sites/soc_glance-2011-en/08/01/index.html;jsessionid=5ak1j8n4ac176.x-oecd-live-01?contentType=&itemId=/content/chapter/soc_glance-2011-26-en&containerItemId=/content/serial/19991290&accessItemIds=/content/book/soc_glance-2011-en&mimeType=text/html
  To quote, 'Trust data is based on the question: "Generally speaking would you say that most people can be trusted or that you need to be very careful in dealing with people?" Data come from two different surveys: the *European Social Survey* (ESS) (2008 wave 4) for OECD-Europe and the *International Social Survey Programme* (ISSP) (2007 wave) for non-OECD Europe. For the ESS, interviewees answer using a 10-point scale with the lowest category being "You can't be too careful" and the highest "Most people can be trusted" . The ISSP has four categories: "People can almost always be trusted" , "People can usually be trusted" , "You usually can't be too careful in dealing with people" , and "You almost always can't be too careful in dealing with people" . The trust measure aggregates the top five categories for the ESS and the top two categories for the ISSP to give a percentage of people expressing high levels of trust. When data for a country was available from different sources, ESS data was preferred over ISSP data, because of larger sample sizes and a more nuanced question. Weights provided by the surveys were applied. Data comparability across countries may be affected by sample sizes and variation in response rates. Further comparability issues arise because of differences in survey frames and questions.
- Social expenditure per head data: http://www.oecd-ilibrary.org/sites/socxp-govcap-table-2012-1-en/index.html?contentType=/ns/KeyTableEdition,/ns/StatisticalPublication,/ns/Table&itemId=/content/table/socxp-govcap-table-2012-1-en&containerItemId=/content/table/20743904-table2&accessItemIds=/content/tablecollection/20743904&mimeType=text/html
- Corruption index including statement that corruption is negatively correlated with trust http://www.oecd-ilibrary.org/sites/soc_glance-2011-en/08/02/index.html?contentType=&itemId=/content/chapter/soc_glance-2011-27-en&containerItemId=/content/serial/19991290&accessItemIds=/content/book/soc_glance-2011-en&mimeType=text/html
- Showing the correlation between equality and trust, and income and trust: http://www.oecd-ilibrary.org/sites/soc_glance-2011-en/08/01/index.html;jsessionid=57mcwhqih05ns.x-oecd-live-02?contentType=&itemId=/content/chapter/soc_glance-2011-26-en&containerItemId=/content/serial/19991290&accessItemIds=/content/book/soc_glance-2011-en&mimeType=text/html
  Gini http://stats.oecd.org/BrandedView.aspx?oecd_bv_id=socwel-data-en&doi=data-00654-en

Giving data from *Nationmaster*

- "Society > Volunteering and social support > Volunteering: donated money by country, OECD Country statistical profiles 2009," http://www.NationMaster.com/graph/lif_soc_vol_and_soc_sup_vol_don_mon-volunteering-social-support-donated-money (assessed July 17, 2013)
- "Society > Volunteering and social support > Volunteering: volunteered your time by country, OECD Country statistical profiles 2009," http://www.NationMaster.com/graph/lif_soc_vol_and_soc_sup_vol_vol_you_tim-social-support-volunteered-your-time (assessed July 17, 2013)

Appendix 9B Visual representation of the links between trust and state or market sector activities

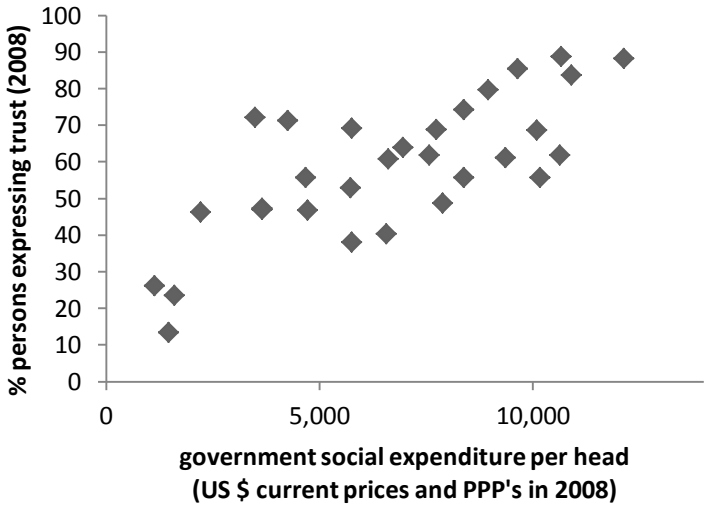


Fig.9B.1 Correlation between government social expenditure per head and trust

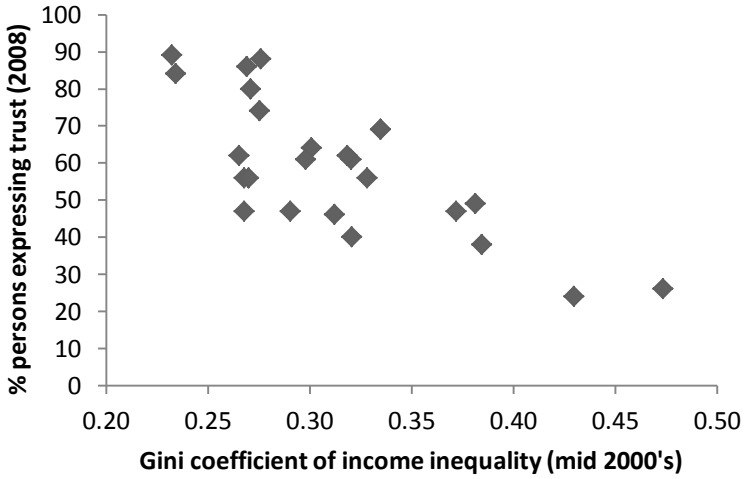


Fig.9B.2 Correlation between equality and trust

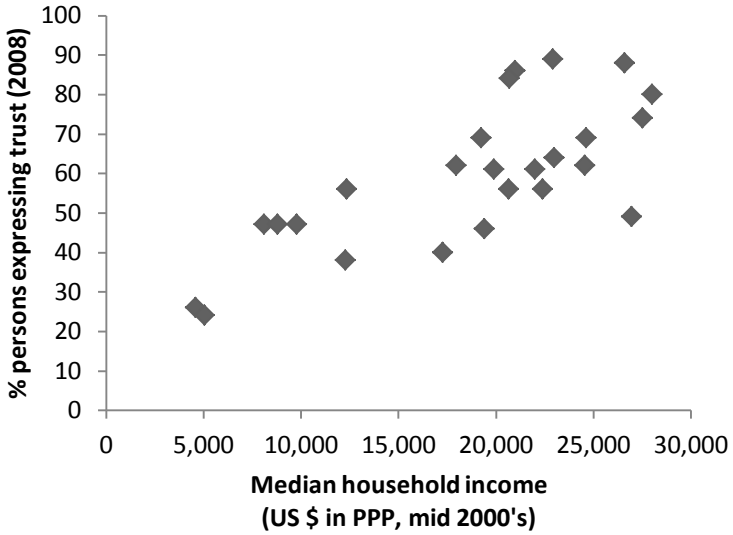


Fig.9B.3 Correlation between mean household income and trust

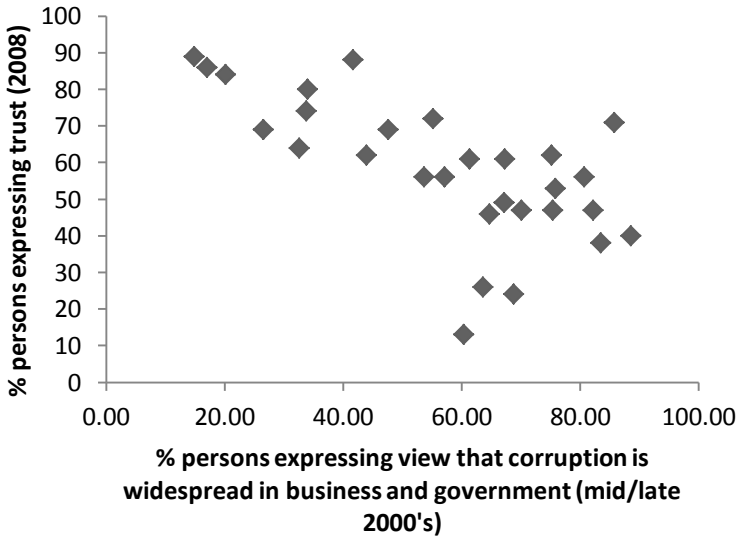


Fig. 9B.4 Correlation between average perception of corruption and trust

Appendix 9C: Links between the civic, state and market sectors

Although state and market sector activities interact with trust, giving behaviours also interact positively with some aspects of the state and market sector that build trust

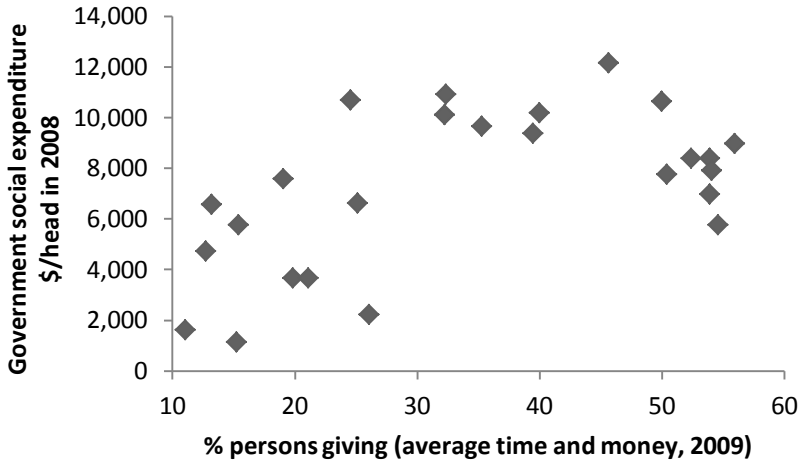


Fig.9C.1 The correlation between private giving and government expenditure/head

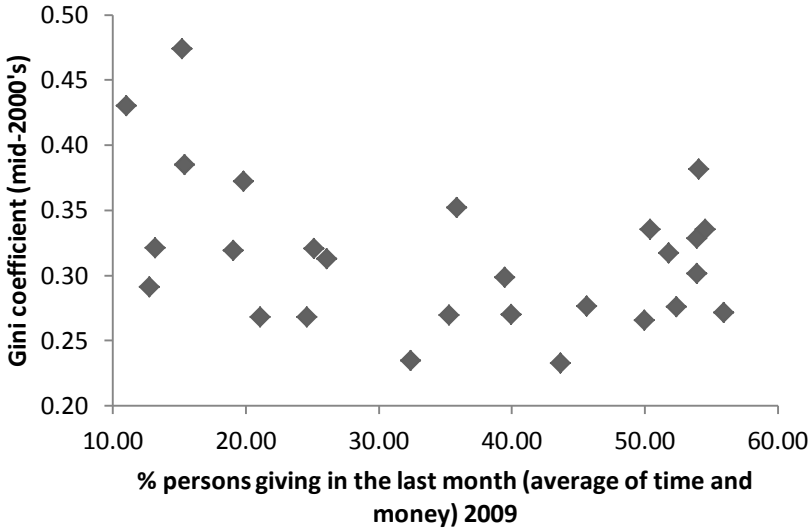


Fig. 9C.2 The correlation between private giving and Gini coefficient

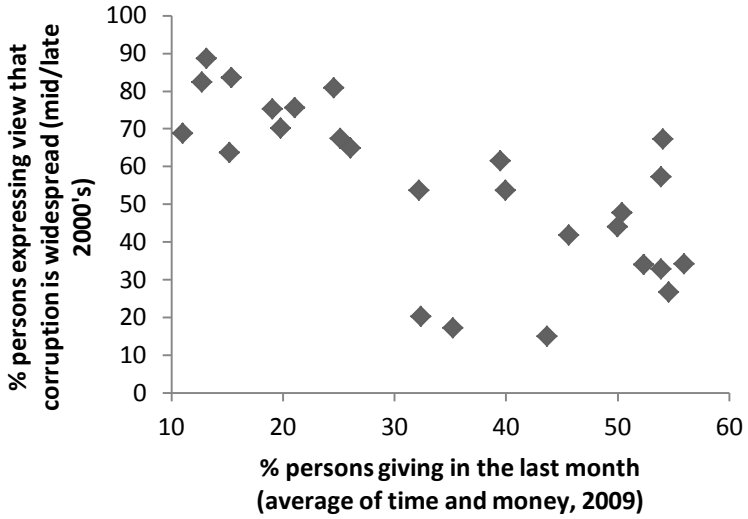


Fig. 9C.3 The correlation between private giving and corruption

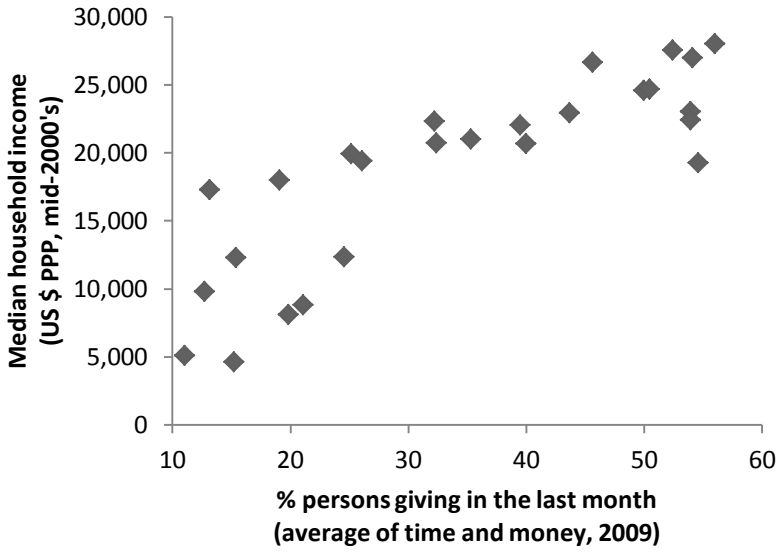


Fig. 9C.4 The correlation between private giving and household income

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Additional Inspiration:

Of all the many books referenced throughout this thesis, the most inspirational and yet unreferenced is the bible, acting also as my plumb line. I add just two quotes here (NIV translation): Romans 13:8-11: "Let no debt remain outstanding, except the continuing debt to love one another, for he who loves his fellowman has fulfilled the law. The commandments, 'Do not commit adultery,' 'Do not murder,' 'Do not steal,' 'Do not covet,' and whatever other commandment there may be, are summed up in this one rule: 'Love your neighbour as yourself.' Love does no harm to its neighbour. Therefore love is the fulfilment of the law." 1 John 4:8-11: "Whoever does not love does not know God, because God is love. This is how God showed his love among us: He sent his one and only Son into the world that we might live through him. This is love: not that we loved God, but that he loved us and sent his Son as an atoning sacrifice for our sins. Dear friends, since God so loved us, we also ought to love one another." I am also indebted to the 'Vision of Community' articulated by a development organisation I have worked with, 'Food for the Hungry.' Their vision (and Jonathan Tame's, who linked us up with it) deepened my grasp of this relational approach to development.

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