

POINT–COUNTERPOINT

Health by association? Social capital, social theory, and the political economy of public health

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Three perspectives on the efficacy of social capital have been explored in the public health literature. A ‘social support’ perspective argues that informal networks are central to objective and subjective welfare; an ‘inequality’ thesis posits that widening economic disparities have eroded citizens’ sense of social justice and inclusion, which in turn has led to heightened anxiety and compromised rising life expectancies; a ‘political economy’ approach sees the primary determinant of poor health outcomes as the socially and politically mediated exclusion from material resources. A more comprehensive but grounded theory of social capital is presented that develops a distinction between bonding, bridging, and linking social capital. It is argued that this framework helps to reconcile these three perspectives, incorporating a broader reading of history, politics, and the empirical evidence regarding the mechanisms connecting types of network structure and state–society relations to public health outcomes.

Keywords Social capital, social support, public health, political economy, inequality, the state, British 19th century history

In the ongoing quest to improve our understanding of the conditions that make for improved public health and well-being, scholars, practitioners, and policymakers have recently returned in earnest to a theme with a long and distinguished history in the social sciences—namely, following Durkheim, the importance of social circumstances in shaping the quality of life one enjoys.^{1,2} This has been fuelled in part by the indifferent performance of a series of high-profile public service delivery reforms, the widening rhetorical appeal of communitarian and neo-liberal policy discourse,³ and a growing recognition that ever more sophisticated medical interventions and media campaigns have had a disappointing impact on some of society’s most persistent social ills (e.g. smoking, depression, teen pregnancy). Within the public health field, these failures of policy have increasingly focused attention on the limitations of a narrowly ‘individualist’ approach to population health,

associated with the rise of clinical epidemiology during the post-war era.⁴ The debate, reviewed below, has centred on the persistence of health inequalities in affluent societies, and the extent to which more effective research and policies should prioritize the psychological experience of individuals and their relationships to others in their community and society, or the material deprivations due to overall economic structures and national political choices.

All sides in this debate have deployed the idea of social capital in support of their particular claims, in the process encapsulating many of the (inherent) conceptual ambiguities, dilemmas, and concerns surrounding the term in general. Identifying the nature and extent of the impact of social relationships—generally referred to as ‘social capital’, following the influential work of Robert Putnam^{5,6}—has become a veritable cottage industry across the social sciences. Scholars have documented the importance of social capital in fields ranging from economic development and government performance to criminal activity and youth behaviour,^{7,8} but ‘in none is the importance of social connectedness so well established as in the case of health and well-being’.⁶ General guides to how the concept of social capital has been applied to various health issues can be found elsewhere.^{9–18} In this paper we wish to focus instead on (a) the

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analytical and political controversies that surround this literature, in particular the emerging divide between those focusing on the primacy of (1) support networks, (2) economic and social inequality, and (3) access to resources for explaining health outcomes; and (b) the contemporary policy lessons for public health emerging from both historical studies of public health issues and the broader theoretical and empirical debates in the (ever-expanding) field of social capital research.

Our central thesis is that it is desirable and possible to reconcile the controversies surrounding social capital as it applies to issues in public health, but that doing so requires incorporating empirical and conceptual insights from history and the broader social capital literature. Importantly, all camps in the field of public health generally agree that social capital ‘matters’ in some basic sense—unlike in say, the field of economic development, where selected critics paint it as a politically vapid distraction, and argue for its abandonment.^{19,20} Most participants also agree that, while imperfect, efforts should be (and indeed have been) made to resolve lingering disputes on the basis of the empirical evidence. Even so, however, with highly provocative summary claims such as those by Putnam—‘[i]f you smoke and belong to no groups, it’s a toss-up statistically whether you should stop smoking or start joining’⁶ (drawing on James House *et al.*,²¹ Lisa Berkman,²² and Teresa Seeman.²³ But see also Lynch, Davey Smith *et al.*²⁴)—it is not hard to see why the idea of social capital has generated both acclaim and disdain in the field of public health.^{25,26} While taking the critics seriously, we believe social capital, properly understood, can indeed make a significant contribution to public health theory, research, and policy.

The paper proceeds as follows. Section I explores the current terms of the debate between three emergent camps in the field of social capital and public health, and seeks to provide an analytical basis for discriminating between them. Section II outlines a theoretical framework for reconciling the different views. Section III provides a historical perspective on a key set of public health concerns from 19th century Britain, demonstrating both the efficacy of the theoretical framework and the more general importance of incorporating historical insights into contemporary policy debates. Section IV discusses the significance of these arguments for social capital theory and public health. Section V concludes, with a brief summary of the policy implications for public health arising from both the analysis presented and the broader social capital literature.

I Rival views of social capital and public health

In the past few years there has been an intensive exchange in the journals and at conferences among several of the leading figures in the field of public health and epidemiology over the concept of ‘social capital’.^{3,23,27–44} Social capital has entered these fields principally through the work of two individuals, namely Robert Putnam—whose seminal 1993 book on regional government in Italy, *Making Democracy Work*,⁵ drew heavily on (and provided a new empirical base for) social capital theory (but did not itself address public health issues)—and the more directly relevant work of Richard Wilkinson, whose 1996 book, *Unhealthy Societies*,⁴⁵ first introduced Putnam’s notion of social capital to the public health field. In addition, Putnam has drawn

on, and indirectly contributed to, research on social capital and public health in his most recent study of social capital in the US, *Bowling Alone*, published in 2000.⁶ Richard Wilkinson, by contrast, has been working for many years⁴⁶ within the field of comparative epidemiology to further our understanding of the relationship in relatively affluent societies between income inequalities and mortality patterns, and is one of the principal protagonists in the recent debates.

The debates generated by these authors have primarily treated ‘social capital’ as if it is a (presumably) more sophisticated formulation of the broader concepts of ‘social cohesion’,⁴⁴ ‘social support’,^{47–50} ‘social integration’,⁵¹ or ‘civil society’.⁴¹ Epidemiologists have noted that the term ‘networks’ is often used by the proponents of social capital, and this strikes a familiar note for them with a body of respected empirical literature, dating from Brown and Harris’s path-breaking study, *Social Origins of Depression*,⁵² and the Alameda County Study, demonstrating that individual risks from a range of chronic and degenerative conditions, such as myocardial infarctions, are improved where there are good social support networks.^{51,53} For the purposes of our present discussion, we call these studies the ‘social support’ school. This is a view of social capital—defined simply as the nature and extent of one’s social relationships and associated norms of reciprocity^{54,55}—as connected to health outcomes via some variation of a direct social support mechanism.⁵⁶

The specific research connecting social capital to health outcomes via a social support mechanism is vast. In this sense, social capital has been empirically linked to, among other things, improved child development⁵⁷ and adolescent well-being,⁵⁸ increased mental health,⁵⁹ lower violent crime rates and youth delinquency,^{60,61} reduced mortality,⁶² lower susceptibility to binge drinking,⁶³ to depression,^{64,65} and to loneliness,⁶⁶ sustained participation in anti-smoking programmes,⁶⁷ and higher perceptions of well-being^{68–70} and self-rated health.^{71–74} Where urban neighbourhoods and rural communities (and particular sub-populations) are demonstrably low in social capital, residents report higher levels of stress⁷⁵ and isolation,⁷⁶ children’s welfare decreases, and there is a reduced capacity to respond to environmental health risks⁷⁷ and to receive effective public health service interventions.^{78–84}

There remain significant ongoing methodological disputes and expressions of scepticism over exactly what this work is demonstrating, particularly in the two central areas of relationships between health measures and both inequality and trust.^{27–32,34–40,85,86} It can be particularly noted that the implications for health and welfare of issues such as trust and reciprocity are likely to be strongly context-dependent. It is entirely commonplace to accept, following Portes,⁸⁷ that social capital can equally function in both a socially exclusive and an inclusive way, having positive welfare effects for some and negative for others. Kunitz, for example, provides a valuable account of how social capital might be both a part of the problem and solution to local health problems.⁸⁸ For this reason, it has been argued that it is still premature (at best) to include social capital measures in official public health surveys.^{89,90} Findings have to be interpreted very carefully and certainly cannot necessarily be generalized from one level of aggregation to another. More fully satisfactory evidence and methodologies—such as multilevel modelling and randomized

experiments—are still rare in the literature, so that the most recent contributions of Subramanian, Kawachi, and colleagues represent an important advance in this respect.^{91–93} But as a general field of research it is hard not to be impressed with the volume and diversity of the empirical evidence indicating that social capital is likely to be a significant determinant of at least some important health outcomes. Furthermore, it is not necessary for social capital to fully explain a vast range of empirical public health outcomes as a pre-condition for being taken seriously—it would be very useful if it could be carefully linked to just two or three. The issue that animates the academic debates, and which this paper seeks to reconcile, however, is whether social capital is a direct or secondary ‘cause’ of these outcomes—that is, whether changes in the stocks and flows of social capital *per se* are making significant independent contributions to observed health outcomes, or whether they are merely responding to the changing character of broader political and economic forces.

In the mid-1990s, Richard Wilkinson⁴⁵ led a break from the social support literature, arguing that social capital concerns were relevant to the extent that they were part of the psycho-social effects of widening levels of socioeconomic inequality. He argued that in the handful of most affluent, post epidemiological transition⁹⁴ societies (excluding Eastern Europe), where lethal diseases associated with sanitation, infection, and absolute poverty now play only a very small part in determining the overall death-rates, that significant changes in the degree of socioeconomic inequality have a particularly strong influence over the differentially evolving comparative epidemiology of these populations. He contended that among the most affluent societies those which have moved towards more uneven income distributions (most notably a number of liberal market economies such as the US and the UK over the last two decades) are characterized by individuals with increased anxiety and declining social support institutions, and by rising levels of violence and disrespect between citizens. This results in poorer population health performances, in terms of national average life expectancy figures, which fail to improve as much as those of comparable economically advanced societies, such as Canada, Japan, or Sweden, which have not experienced such a degree of widening income inequality and associated decline in civic trust and collective support for social infrastructure.^{4–5,95,96}

Michael Marmot and his colleagues’ long-standing research has been important in identifying a physiological mechanism to explain these results, linking social support with more tractable notions of ‘stress’ such as the absence or loss of autonomy over one’s life-course, or over one’s working or neighbourhood environment.^{97,98} *Prima facie* bio-medical plausibility for this lies in research showing correlates of such perceptions of stress in states of anxiety and physiological arousal, which result in the enhanced chronic secretion of harmful levels of doses of cortisol, adrenaline, and nor-adrenaline within the body’s neuro-endocrine system.^{99,100} Marmot also sees widening absolute and relative inequality as the primary driver of public health outcomes in affluent societies.

Wilkinson’s principal critics—John Lynch, George Davey Smith, Carl Muntaner, and their various collaborators^{24,26–36,101,102}—have argued that inequalities in health are always fundamentally rooted in differences of access to material resources (including housing and relevant neighbourhood amenities), which are, in

turn, ultimately the product of political and ideological decisions.¹⁰³ They are concerned that the drift of Wilkinson’s analysis is to support a form of ‘health transition thinking’, which would deny the significance of the material and the political under advanced economic conditions of affluence. This ‘transition thinking’ would imply that material deprivations are only of significance to health at lower levels of economic development and that, with the withering away of ‘real’ (i.e. absolute, survival-threatening) poverty in higher-income societies, only the psycho-social causes remain as significant factors producing health inequalities. This could give succour to the neo-liberal position because it appears to imply that such differentials can be fixed ‘on the cheap’ with ‘social support’ and ‘self-help’ networks, without needing to give any serious attention to the more contentious issues of inequalities in ownership of wealth and in distribution of power.

In his most substantial response to this critique, Wilkinson³⁸ makes four relevant points in rapid succession:

- (1) Part of the difficulty with the concept of social capital is that it was borrowed from other disciplines rather than being developed specifically for the health field.
- (2) No doubt it is a popular concept because it holds out the idea that there are costless ways that poor communities can pull themselves up by their bootstraps...
- (3) ... But an important part of the growing health interest in social capital comes not from ignoring income distribution, but precisely from the opposite direction: from trying to understand why income distribution is important to health.
- (4) [As such,] the evidence suggests that more egalitarian societies are more cohesive, less violent, more trusting, and foster more involvement in community life.

Moreover, he subsequently added:

- (5) If we fail to reduce income inequalities, societies will be more likely to show tendencies towards discrimination and victimisation of vulnerable groups. ... [T]hese dimensions of social reality may have a special salience as determinants of levels of anxiety and physiological arousal in a population. Because members of the same species have all the same needs there is a potential for continuous conflict between them. But ... human beings can also be the greatest source of [mutual] assistance, [and] support ... Similarities between some of the physiological effects of low social status produced under experimental conditions in monkeys and those associated with social status in human beings, suggests that an important part of the social gradient in human health is attributable to the direct effects of social status, rather than to other influences on health like poorer housing, diet and air pollution.

Among this sequence of points, we believe that the first is crucial, and will return to it at length later in this article. In fact, Wilkinson’s critics, notably John Lynch, have repeatedly urged this and have cited the wider theoretical literature in their contributions. It is crucial because it is difficult to debate the utility of a fundamentally sociological concept substantively and productively without full reference to its original provenance and its current meaning, as developed in the sociological literature. This requires significant expository work where a

concept as potentially powerful, complex, and contentious as social capital is concerned.

Wilkinson, in his second point, acknowledges the same political and policy-related dangers identified by Lynch *et al.* In his third point he comes even closer to the position of his critics, concurring that inequality, of which measures of income distribution form one important index, is highly significant for health outcomes. In his fourth point he endorses the kind of view of the virtues of social capital that Putnam⁵ developed in his study of differences in institutional performance between Italian regions; this acts as the premise for the key point of difference between the two sides in the epidemiological debate, which emerges from the long, fifth quotation from Wilkinson. This difference is not over whether inequality is highly significant in accounting for class variations in health experience in economically advanced societies, but over the nature of the *principal* pathways of causation involved. The fifth extract shows that Wilkinson believes that there is something directly psycho-physiological going on, and that this is of prime importance. He believes that the concept of social capital is helpful because it is pointing us towards the source of this biological, evolutionary-programmed health effect, which flows from the relative social cohesiveness (or lack thereof) of a local or a national community.

For Wilkinson, the extent to which an affluent society is experienced as either a 'hierarchy' or, conversely, a 'community of equals' determines the overall extent to which those citizens who find themselves at the bottom of the socioeconomic pecking order will, as a characteristic response, experience states of anxiety and arousal, resulting in long-term damage to their health if this becomes a chronic situation for them. Even in more egalitarian societies, some citizens will inevitably still find themselves in this unfavourable position, possibly for long periods. But this will not necessarily produce the damaging physiological reactions if they do not perceive their predicament in the same demeaning and threatening way. It should be noted that this is not a simplistically biological determinist argument, since culturally constructed perceptions play a key role. The physiological mechanism of damage is donated by evolution, but whether or not it is invoked depends crucially on potential victims' perceptions of their predicament. This in turn depends on whether or not they see themselves as living in a cohesive, egalitarian, social-capital-rich society, or in one that is changing from being more to less egalitarian.

It is important to observe, incidentally, that the research on which Wilkinson and others and their critics have so far based most of their claims (and counter-claims) has almost exclusively consisted of statistical comparisons of income inequality measures for national and sub-national populations. However, since it is really *perceptions* of inequality (and/or lack of opportunity for social mobility) that are at issue, it is arguably a rather different kind of evidence that is truly required to assess the hypothesis. For instance, American society may be very unequal by such income measures and may be fast becoming more unequal.¹⁰⁴ However, its citizens'—even its poor citizens'—typical perceptions of the degree of injustice involved in this may be significantly less than that provoked by much smaller absolute increases in income inequality experienced by the inhabitants of another country, which has a strongly established self-image as an egalitarian society.¹⁰⁵ Clearly there

must be some correlation between absolute levels or absolute changes of income inequality and perceptions of 'hierarchy', 'egalitarianism', and possibilities for 'mobility',¹⁰⁶ but the scope for flexibility in these assessments due to differences in national political cultures and cherished myths—i.e. prior histories and dispositions—should not be underestimated.

While Lynch and his colleagues may (or may not) agree that these physiological effects occur in societies that are perceived as unequal, they certainly do not think these effects are anything like as important as the direct health-damaging consequences of what they term the 'neo-material' realities of poverty, even in an affluent society. The range of such effects includes poor quality and even dangerous housing, the tendency to be restricted to lower quality food and clothing, greater exposure to environmental pollutants (including low air quality), higher likelihood of accidents and violence of most kinds, and less likelihood of access to effective medical care when required.

The thought naturally occurs to the observer of this debate that both sides have a point. It is certainly the case that if one or the other viewpoint could be shown empirically to be much the more substantial effect, then this would have important and rather different consequences for indicating the priorities that remedial policies should take. In the absence of such compelling evidence, however, it would seem most sensible to assume that both viewpoints could be valid. This might be conducive to the implementation of a superior, third kind of strategy for policy, which could embrace both points of view—indeed, would also embrace the older 'social support' view. This article will now attempt to arrive at the outline of such a strategy, on the basis of a review and application of social capital theory.

It is important to this line of thinking that, despite their dispute with Wilkinson, Lynch *et al.* remain relatively well disposed to the concept of social capital. They are careful to withhold their approval from many of the narrow policy formulations of social capital that abound (e.g. as being little more than volunteering and charity work); indeed, they are highly critical of it. They insist that the concept only has potential value to public health and epidemiology if properly located within a broad and comprehensive framework, embracing a role for the state and for the motivating role of political ideology. Indeed, we are encouraged that they have cited our work^{7,107–109} in arguing for such a formulation. It seems to us, then, that if the concept of social capital is properly developed and carefully spelled out, it may well provide the means to mediate in this dispute. With the assistance of a more fully elaborated specification of the concept of social capital, the extent of common ground between these positions may then be clarified.

II Social capital and social theory revisited

There is a particular need for extended conceptual reflection on social capital as it relates to the public health field because none of the authors who have brought social capital to the attention of epidemiology have themselves been directly involved in developing a detailed theory to locate the concept. Neither Robert Putnam (and his Harvard colleagues) nor Richard Wilkinson—nor, for that matter, John Lynch and his various collaborators—have undertaken fundamental theoretical work

on the concept. The two seminal social theorists of the late 20th century who placed social capital in a theoretical context in this way were the French sociologist Pierre Bourdieu¹¹⁰ and the American sociologist James Coleman.^{7,111–115} However, they produced quite distinct formulations during the 1980s, each of which has been highly influential but neither of which is now considered to be a satisfactory or full specification.^{7,87,116,117}

While debate over the concept continues, it seems likely that social capital is destined to become, like ‘class’, ‘gender’, and ‘race’, one of the ‘essentially contested concepts’ of the social sciences. These are concepts that are simply too politically and ideologically important for those at any point on the political spectrum to concede to a definition of the term that they do not see as squaring with their own beliefs, assumptions, and principles. Contested concepts reflect a consensus on the broad nature of the phenomenon they refer to and its great importance, without any agreed-upon closure on the terms of its definition. It now seems likely, after almost a decade of discussion, that ‘social capital’ may join the ranks of the ‘essentially contested concepts’ category.

An obvious and enduring point of contention surrounds the very definition of social capital, and, concomitantly, the appropriate unit of analysis to which it should be applied. The narrowest definitions of social capital, not surprisingly, are those of neo-classical economists,¹¹⁸ who regard it as the property of individuals (i.e. their social skills, or capacity to negotiate solutions to joint problems). At the other end of the spectrum, political scientists such as Francis Fukuyama¹¹⁹ have described entire societies as having high or low social capital; empirical cross-study growth research by the economists Stephen Knack and Philip Keefer^{120,121} has also been influential in this regard, using data on trust and participation from the World Values Survey to impute social capital scores for whole countries. In between are particular writers who wish to include or exclude additional features such as ‘norms’ and ‘trust’, and those such as Evans,¹²² Woolcock,⁷ and Szreter^{108,109} who assign a prominent role to the nature and extent of state–society relations as a necessary part of the theory, if not the actual definition, of social capital.

Though contributions across this spectrum abound, the centre of gravity in the field as a whole is located far towards the more micro end. This is the realm in which James Coleman pioneered modern research on the topic, and where Putnam continues to lead today. In his most recent formulations, however, Putnam⁶ has sharply distinguished his position from that of Coleman, who believed that, by definition, social capital could only yield positive outcomes. Putnam’s view, consistent with our own position, and that of Portes,⁸⁷ is that the purposes to which a given resource can be put should be analytically distinct from how it is defined. Thus knowledge (‘human capital’) and technology (‘physical capital’) can be put to purposes that most people find thoroughly detestable—e.g. building chemical weapons—but this does not, in and of itself, prevent those inputs from still being unambiguously ‘capital’ (or assets).

Putnam leans increasingly towards a relatively restricted definition of social capital as the nature and extent of networks and associated norms of reciprocity.⁶ As such, social capital enables individuals to gain access to resources—ideas, information, money, services, favours—and to have accurate expectations regarding the

behaviour of others by virtue of their participation in relationships that are themselves the product of networks of association. This occurs as individuals elect to engage in various activities with others in order to pursue their leisure, familial, ethnic, local environmental, or wider political interests. Social capital is thus viewed at a relational level—it is the property of individuals, but only by virtue of their membership in a group. Aggregate measures are thus plausible to the extent that they are summations of responses drawn from an appropriate sample of individuals from a larger population, but, for Putnam, it is not only the aggregate *per se* that ‘has’ social capital. Network scholars^{123–125} take a somewhat orthogonal approach, arguing that social capital refers to the resources (e.g. information, social control) that flow through networks, not the network structure itself. In this sense, the ‘mainstream’ social capital literature, represented paradigmatically by the work of Putnam, regards social capital as the ‘wires’ (or social infrastructure) while network theorists regard it as the ‘electricity’ (or social resource). We would want to add that it is crucial to know in what kind of encompassing contexts the networks of wires and their flows of electricity are embedded, particularly with respect to the vertical ‘topography’ of power gradients in society, across which networks may or may not provide links.

The idea of social capital has made such an enduring impact on the contemporary academic research and policy agenda largely because of the attention it has focused on the role and strength of civic associations. Putnam is particularly worried that there has been a fall-off over the last two or three decades in the propensity of American individuals to join associations and participate together in a range of activities. He attributes this to the lifestyle of the two generations raised since the Second World War, who have been socialized into suburban sprawl (driveways from the road into garages and no walkways between homes) and long commutes (less time in the neighbourhood), the advent of dual careers (and over-working at that), and over-reliance on the television as a (vastly inferior) substitute for local social interaction.⁶

Putnam is additionally concerned that the kind of social capital that may be proliferating in America today is too often the ‘wrong’ kind. This follows from an important conceptual revision within social capital theory, which occurred in the late 1990s, when the distinction was made between (what are now popularly called) ‘bonding’ and ‘bridging’ social capital.¹²⁶ It had become apparent that not all networks of association produced norms of trust and confidence between their members that could be said to serve the best interests of the wider community, nor sometimes the best interests of some of those within the network.⁸⁷ The mafia was an obvious example of this, which Putnam⁵ had previously dealt with by distinguishing between networks based on ‘horizontal’ egalitarian relations and those that were more ‘vertical’ and hierarchical, with only the former considered to be capable of producing genuine forms of social capital. But more difficult was the case of the dangerously anti-social militia bands of contemporary US society, nominally egalitarian in their associational structure, such as the Oklahoma City bombers.

The ‘bridging’ and ‘bonding’ distinction facilitates discrimination between such different kinds of social capital. Bonding social capital refers to trusting and co-operative relations between members of a network who see themselves as being similar,

in terms of their shared social identity. Bridging social capital, by contrast, comprises relations of respect and mutuality between people who know that they are not alike in some socio-demographic (or social identity) sense (differing by age, ethnic group, class, etc). The precise nature of the social identity boundaries, and the political salience of bonding and bridging groups are thus highly context specific. Within the US, at least, it then becomes clear that Putnam's particular concern is the decline of 'bridging' social capital.

In recent years a further conceptual refinement has been introduced into the social capital literature, 'linking' social capital.^{107,109,127,128} We would define linking social capital as norms of respect and networks of trusting relationships between people who are interacting across explicit, formal or institutionalized power or authority gradients in society. This refinement seeks to incorporate a distinction among all those social relationships that would otherwise be grouped together in the 'bridging' social capital category, namely between those relationships that are indeed acting to 'bridge' individuals that are otherwise more or less equal in terms of their status and power ('bridging' is, after all, essentially a horizontal metaphor)—e.g. ethnic traders seeking counterparts in overseas markets, participants in artistic activities, or professionals of different nationalities exchanging business cards at international conferences—and those that connect people across explicit 'vertical' power differentials, particularly as it pertains to accessing public and private services that can only be delivered through on-going face-to-face interaction, such as classroom teaching, general practice medicine, and agricultural extension.¹²⁹ This latter distinction, called 'linking' social capital, draws empirical support from a range of studies^{130–132} showing that, especially in poor communities, it is the nature and extent (or lack thereof) of respectful and trusting ties to representatives of formal institutions—e.g. bankers, law enforcement officers, social workers, health care providers—that has a major bearing on their welfare.

Linking social capital as defined here seeks to introduce a conceptual and empirical distinction as it pertains to individuals' overall portfolio of social relationships that is demonstrably central to shaping welfare and well-being (especially in poor communities). Accordingly, just as health outcomes can be improved by expanding the quality and quantity of bonding social capital (among friends, family and neighbours) and bridging social capital (trusting relations between those from different demographic and spatial groups), so, too, is it crucial to facilitate the building of linking social capital across power differentials, especially to representatives of institutions responsible for delivering those key services that *necessarily* entail on-going discretionary face-to-face interaction. Linking social capital, it should be added, like bonding and bridging, can also be put to unhappy purposes—e.g. nepotism, corruption, and suppression. To repeat, the definition of social (and any other form of) capital does not turn on the purposes, favourable or otherwise, to which it can be put.

In our view social capital must be the property of a group or a network. This is, however, far from clear if the empirical literature on social capital is scrutinized. The reason for this is that in order to study and—especially—to attempt to measure social capital,^{133,134} there has been a strong tendency to develop a methodology that can capture its observable

outcomes through individuals' expressions of degrees of trust in other people. The gathering of information on trusting relationships from individual interviewees has, thus, given the impression that social capital is a property of individuals. Moreover, the fact that another outcome of social capital is that it enables individuals to do things they otherwise could not do means that social capital can manifest itself as a resource that individuals can draw on in certain circumstances.

In addition to subjective questions regarding general (as popularized through the canonical World Values Survey question and other national surveys) and particular (e.g. politicians', different demographic groups', service providers') perceptions of trust, social capital has been measured through, among other things, participation rates in local organizations (including the organization's purpose, demographic composition, and rules governing entry, decision-making, and leadership selection), nature and extent of informal or everyday socializing, sources and forms of social support (both given and received), voting rates, access to sources of information and transport routes, political engagement (knowledge of politics, writing to newspapers, protesting/campaigning, running for office), personal efficacy, social cohesion/exclusion, and sources of local-level conflict. Many of the early measures of social capital were derived from secondary sources—that is, from surveys not explicitly designed to measure 'social capital'. While obviously imperfect, these attempts nonetheless provided a considerable spur for advancing the subsequent design and funding of primary survey and ethnographic work, a task now being undertaken by groups ranging from local community associations and universities to the OECD and World Bank (and many of their respective member governments). The formal definition of social capital, which we have outlined here, renders it inherently difficult as a subject for precise comparative empirical measurement.¹³⁵ However, this is to acknowledge no more than that social capital is subject to the same problems which afflict most other important concepts in the social and economic sciences, very few of which can in fact be measured directly and most of which are observed through their imputed effects and outcomes.

If social capital is not a property of individuals, *per se*, it is, however, a property of their relations with each other, occupying the abstract socio-cultural space of relationships between individuals. One way of envisioning this is as Putnam's 'wires'. However, it has to be remembered that any one of these 'wires' connecting any pair of individuals only exists, *qua* social capital, by virtue of its being part of a larger network of relationships (or wires). Otherwise, the relationship of trust between the two people concerned would be a simple interpersonal dyadic one, carrying no implications for the transitivity or 'portability' of their trust in their engagements with other parties in the network. That larger network is crucially premised on its participants having shared norms of reciprocity—and these must be a trans-individual and group property; hence Putnam's formula that social capital inheres in 'networks and norms'.

But it is important to think further about what makes those shared norms in a network possible. At one level, this can be explained simply as a form of trust built up by repeated interaction. But one must still ask: might there be crucial preconditions for such interaction to create trusting rather than distrusting

relations or indifference? This requires more than just the capacity to communicate via a shared language. For trusting social norms to develop, there needs to be a minimum degree of understanding among the participants in the network in their mutual dealings with one another that they share each other's goals and purposes, and are working together towards mutually compatible ends. This, in turn, needs to be based upon a shared sense of fairness (justice in at least a relative sense) and mutual respect. That, in turn, can only be the product of a prior history of political, constitutional, and ideological work to construct the conditions for such a shared sense of fairness to be perceived by those choosing to participate in the network in question. Thus bridging social capital between people who know themselves to be unlike in terms of social identity can only occur spontaneously in a civil society where there already exists a rough and ready approximate equivalence between unlike individuals, in order that these networks, premised on shared norms (despite differences of social identity) can still form.

Where, however, there are circumstances—sustained by legal institutions (e.g. Jim Crow laws, apartheid), high economic inequality, rigid social status differentials (e.g. caste distinctions)—in which all individuals do not perceive themselves as enjoying such a rough equivalence, it is entirely unrealistic to expect spontaneous bridging social capital to form between haves and have-nots, or between officials, professionals or non-governmental organizations (NGO) (in less-developed countries) and the poor communities they work with, whose compounding disadvantages place them in a position of virtual social isolation.¹³⁶ In these circumstances, bridging social capital, if it is to exist at all, must be carefully created. The onus in these difficult circumstances is on those with the power and resources to think very carefully about how to create the shared sense of fairness, including mutual respect between all concerned, which is the necessary precondition for shared understandings and group norms of joint goals to emerge and so to create the proliferating networks of trusting relationships between different people, which are bridging social capital. Of course, the poor remain active agents, albeit heavily disadvantaged; the initiating push for linking social capital may well still come from the poor themselves, as has been documented, but such studies also show that a sympathetic, skilled response from those in power and authority will be critical, too.^{137,138} Social capital that is created in this way in these difficult circumstances, rather than spontaneously emerging from the (approximately) level playing field of civil society, is a qualitatively different kind, which we would term 'linking' social capital. This reflects the explicit appreciation that it represents relationships of trust between members of a network who know themselves not only to be different in terms of social identity (bridging social capital) but also in terms of their institutionalized endowments of power and resources.

Why bother with social capital in these circumstances? Because without attention to the quality of the relationships between those with differential access to power and without paying attention to the need to build extensive transitive networks of respect and trust in such frequently met circumstances, efforts at poverty alleviation, economic development, and service provision to the poor are unlikely to succeed. In the field of health services, in both developing and developed societies alike, this is particularly relevant for the effective

implementation of measures to assist the ill, poor, and the 'socially excluded'.

The three-dimensional approach to conceptualizing the forms of social capital resolves (at least partially) some of the earlier criticisms of social capital theory, especially as it has become manifest in public health and epidemiology. It does so by retaining a relatively parsimonious conceptual and empirical focus (on different types of networks) yet also enables a greater range of important social, economic, and political outcomes (both positive and negative) to be encompassed, while providing a more concrete basis for policy and project responses. We believe it can provide a basis for resolving the disputes between those in the 'social support', 'inequality', and 'political economy' camps of social capital and public health, but to do so requires addressing one final theoretical issue, namely the role of the state.

As indicated above, for some authors the state itself is part of the definition of social capital (since 'societies' are deemed to have social capital properties, and the state is a major component of 'society'). This is not our view; the definition of social capital *per se* should not encompass features of the state. Yet it is impossible to understand how particular networks and social structures are initiated and sustained without reference to the state. The state and its laws are a primary influence upon many of the patterns of association (or lack of them), which students of social capital and public health wish to examine and interpret. This means that while social capital can be empirically studied *as if* it was merely a phenomenon of civil society (in order to make the job of research manageable and tractable), as Putnam prefers to do, interpreting the findings will remain incomplete, and so can be misleading, without placing them—and the concept of social capital—in an adequate, encompassing theoretical and political context. This requires acknowledgement of the variable relationship between state and society.^{139,140}

We have each separately emphasized that the nature and extent of the relationship between the state and its citizens is a critical factor in understanding how key outcomes are attained, even though it is not itself part of the formal definition of social capital.^{7,107–109} This is, firstly, in the constitutional sense of the ways in which the state does or does not underwrite equally the entitlements and the capabilities of all citizens, regardless of gender, age, ethnic origins, and creed.¹⁴¹ Secondly, it is in the moral sense of the historically contingent disposition, which citizens have towards the collective, of which they form a part, which motivates their actions. This can range from outright rejection and hostility or studied indifference to patriotic fervour or blind obedience. Somewhere in the large space between these extremes lies the central range of more healthy, balanced, and mature dispositions, characterized by both informed commitment to a wider society, while retaining independence and liberty, corresponding to Evans's¹⁴² and Woolcock's⁷ notion of 'embedded autonomy'.¹⁴³ Thirdly, there is the issue of the state as the appropriate public arbiter of the liberal polity's collective resources. It is an absolutely essential role of the state in a liberal democratic society with a market economy that it act as the just arbitrator among all the different interest groups and parties who stake a claim to the commonwealth's collective resources. This is quite simply because some form of redistribution of such resources is

necessary to ensure that all, including the temporarily and permanently dependent, the marginal and the unfortunate, are permitted their equal chances to participate to the full in the community's life; if this is taken seriously and not performed in a merely token manner, it is an expensive collective undertaking and one that does not get any cheaper as societies become wealthier (and, usually, older).

By now it should be clear that the sense in which 'the state' is being used here is as much an idea (or set of principles) as a formal institution or agency.¹⁴⁴ It is certainly not intended that 'the state' be used to denote simply 'the central government', as in 'Whitehall' or 'Washington', the bureaucratic caricature beloved of those libertarians who offer the simplistic doctrinaire dichotomies of 'the state' versus 'civil society' or 'the market' in place of serious thought.¹²² In those societies where 'the state' has come to mean only monolithic organs of the centre, it has not, ultimately, played a constructive role in its citizens' lives, as Soviet Moscow discovered to its cost.^{145,146} Thus, genuinely devolved and vigorous, elected, local self-government and regional self-government, with these bodies not acting as mere ciphers or transmission lines for centralist policies but as independent, democratic agencies with a high degree of local participation and autonomy, should be conceptualized as a vitally important component of the more complex concept of 'the state'.¹⁴⁷ This is the form of the state that is found in a society well-endowed with extensive social capital of all three kinds, and (importantly) in which social relations between citizens and representatives of the state are well developed. Britain and America, but also Sweden, have been characterized by fairly well-devolved states of this kind for much of their respective histories.^{148,149}

What, then, does all this mean for the debate among public health experts and comparative epidemiologists concerning the relationship of social capital to their interest in explaining and remedying inequalities of health? It means that social capital is in fact as much about highly tangible matters such as styles and forms of leadership and activism among public health workers and officials *themselves*—and structures of service delivery—as it is about the seemingly abstract properties of 'social cohesion' among communities or social collectivities of various kinds. The practical payload for practitioners and for policy design, resulting from taking linking social capital seriously, and the implied policy ideal of an autonomous but embedded and devolved state, is in fact much more immediate than might at first be appreciated. Lynch *et al.*¹⁵⁰ asked, 'Why do poor people behave poorly?' But what also of health professionals on the front line, and also those who set the overall tone and who design the facilities, the politicians and administrators, 'behaving poorly' with respect to their fellow citizens? The importance of linking and bridging social capital would indicate that an equally compelling question to that of material provision of adequate resources (which undoubtedly is important, as Lynch *et al.* have correctly emphasized) is to examine all the aspects of health care provision, which relate to relationships of mutual respect between citizens of different kinds and to their experience of the medical and social institutions, especially those provided by the devolved state. This inevitably relates to more general features of the national community in question, since it would be entirely unrealistic to expect such respectful relations to be observed uniquely in the

health care sector, if they are not congruent with a similar pattern of behaviour in the wider society.

The nature of the general argument being put here can be verified by examining the long-term modern history of British society. The following historical account illustrates the way in which the balance between bonding, bridging, and linking social capital changed in Britain during the period 1815–1914, and the very real implications this had for the nation's population health patterns during that long period. It also demonstrates the way in which the evolution of social capital is closely related to the practices and politics of the state, both as central and as local government, and to citizens' varied relationships to this multi-faceted 'state'.

III History lessons—social capital, the state, and the resolution of public health crises in 19th century Britain

The British polity had by the beginning of the 19th century established itself as the most prosperous, socially cohesive, and socially secure in Europe, proven through the capacity of its national social security system, the Poor Law, to protect its citizens from local famines since the 17th century,¹⁵¹ and its highly efficient fiscal-military regime guaranteeing external security by achieving the defeat of its principal European rival, Napoleonic France.¹⁵² Even the momentous loss of the American colonies to the home-grown principles of liberty had not precipitated the kind of constitutional crisis which had characterized the 17th 'century of revolution'. Historians of Britain during the 18th century portray it as a 'polite', civil, commercial society, experiencing buoyant, if bumpy, economic growth, highly resilient in the face of internal stresses and external threats.¹⁵³ This was both the era of the building of country houses and of the founding of subscription hospitals by the nation's land-owning and aristocratic elite, and of the intensification of the coffee house society of the merchants of the City of London and the employing manufacturers and traders of the many fast-growing provincial towns. There was abundant and burgeoning bridging and linking social capital, particularly in the towns, in an increasingly socially mobile nation. By 1750 already almost one-fifth of the population were urban-dwellers, twice the European average.¹⁵⁴ For almost a century from the 1730s until the 1820s, while the population doubled in size, its average life expectancy also steadily improved, from under 35 years to reach just over 40 years.¹⁵⁵ But then all this changed.

For about half a century, from the 1820s until the 1870s, during the period when the British economy and national wealth was growing at unprecedented rates (historically analogous to the extremely high rates seen in East Asia during the last two decades), the health and welfare of its industrial workforce and the quality of its urban environments both became endangered in a way which had not been allowed to happen over the previous century of growth. The booming market economy was undoubtedly generating great wealth decade after decade; there was massive surplus capital initially invested in railways and later overseas; and the real wages of the workers were definitely rising (albeit not as fast as the profits and dividends of employers and rentiers). Nevertheless,

the health of the industrial urban workers and their families experienced a catastrophic crisis in the second quarter of the 19th century. From the evidence of death registration it is clear that in the central parishes of cities such as Manchester, Liverpool, and Glasgow, life expectancies dropped to about 25 years, lower than had been seen at any time in those places since the Black Death in the 14th century.¹⁵⁶ The independent testimony of anthropometric evidence (heights) confirms such a severe urban health crisis in the second quarter of the 19th century and that it took until the generation born just before the First World War before average heights of the working classes had returned to the levels of the generation born a century earlier, immediately after the Napoleonic Wars.¹⁵⁷

There is therefore a major puzzle concerning human resources and welfare during this period, when the world witnessed its first great economic success story and when British capital and trade rose to a position of global predominance. Changing patterns in the balance between bridging, bonding, and linking social capital within the domestic British polity are an important part of the explanation for this puzzle.

Two examples, each crucial for the health of the urban population, can illustrate various dimension of this: the Poor Law; and water supply and sanitation. During the era of relatively gradual but sustained economic growth, migration, and urbanization throughout the 18th century to the end of the Napoleonic Wars, the nation's social security system had been operated in an ever more generous way, with national expenditure on poor relief rising tenfold between the 1750s and 1810s.^{158,159} However, with the end of the war for national survival the prescriptions of the *laissez-faire*, anti-welfare analysis of the new 'dismal science' of classical political economy became increasingly influential with a propertied governing elite who believed they were now paying-out far too much to the poor. A politics of distrust and suspicion towards the poor and the unemployed was replacing the more paternalistic attitudes of the past in a society increasingly composed of large urban agglomerations teeming with immigrants, recently arrived strangers from the countryside. The three consecutive decades 1811–1840 saw peak growth rates for all medium and large provincial towns (of more than 10 000 inhabitants). As a category they grew on average by 40% in each 10-year period, representing a deluge of literally hundreds of thousands of new arrivals in each decade.¹⁶⁰

Class divisions of interest were rapidly opening up between capital-owning 'masters' and hired 'men', as the mechanization of successive branches of industry transformed labour relations, beginning with the mass redundancy of a quarter of a million handloom weaving families in Lancashire during the second quarter of the 19th century.¹⁶¹ Such families were forced to leave their rural hamlets and head for the smoke-stacks of Manchester where the new jobs were to be found in the factories. In this context, patterns of social capital were transformed. The linking and bridging social capital of a paternalistic society and a relatively generous Poor Law was formally repudiated with the enactment of the draconian New Poor Law of 1834, which slashed social security spending in half nationally and instituted a new deterrent regime, on the premise that in order to ensure efficiency of free markets in factors of production the unemployed should be strongly encouraged to offer their labour at whatever price was available to them. No longer were

there to be cash handouts to the families of the unemployed. Now they were to be segregated by sex and compelled to repay their meagre social security allowances by arduous labour inside work-houses.¹⁶² In the name of market efficiency, the propertied classes believed themselves justified in defaulting on a previous history of more humane treatment of the poor. In this harsh climate the principal source of social security for the working classes was to be found in the growth of two types of networks, which primarily represent defensive bonding social capital. These were, firstly, workingmen's mutual insurance Friendly Societies;¹⁶³ and, secondly, denominational religious congregations and sects,^{164,165} both of which proliferated in numbers and memberships greatly at this time. Meanwhile the propertied middle-classes moved out to healthier, cleaner suburbs.¹⁶⁶

Thus, the towns and cities of Britain during the half-century after 1815 became both socially divided and class-segregated entities. They were culturally riven by socially exclusive and ideologically separatist sets of disparate social networks, each of them focused around a distinctive nonconformist congregation (dissenting from the Anglican Established Church), each with their own variant of Christian belief and their own pool of resources. Furthermore, there was much conflict of values and mutual political suspicion between the various factions of 'new men' on the scene. Some were rapidly becoming large employers of other men, while many were only petty capitalists of very modest and precarious means exposed to the vagaries of the free market; both of these kinds of new men were in turn quite distinct from the traditional patrician power elite, the network of mainly Anglican landowners and gentry who also continued to be a presence. Class divisions were exacerbated by the 1832 'Great Reform Act', a clever 'divide and rule' move by the landed oligarchy who still dominated the British Parliament, which split the urban industrial interest, granting the vote only to about one in seven adult males, namely those with significant property.

Britain's towns and cities therefore became socially, culturally, and politically fissured by conflicting and cross-cutting networks of power and association for a whole generation before and after 1832, such that in general all that these different fractions of property—some large, some small; some Anglican, some dissenting—could agree upon, was to disagree! The net result was administrative stalemate. There was plenty of social capital in this society. The trouble was that there was very little bridging and even less linking social capital, due to a highly negative attitude towards both the central state and local government and suspicions of all kinds between different social groups (relatively few of whom were yet full citizens with voting rights). There was an abundance only of denominational, sect-based, and trade-associated social capital of a predominantly bonding kind, with insufficient interest in bridging social capital, between congregations, between social classes, between men and women, or between different industrial regions (which virtually formed into separate linguistic groups); the heavy regional accents which developed at this time still remain a marked cultural feature of Britain today.¹⁶⁷

This had profound implications for the second public health example of water and sanitation.¹⁶⁸ The provision of sufficient clean water and sewerage systems to preserve human health in such rapidly expanding residential centres required the effective

mobilization of political will in order to solve a classic collective action problem, since the costs involved were far from trivial. Instead, the growing towns' physical environments were simply allowed to deteriorate as ever more workers crowded in to work in the money-making factories, while the voting ratepayers could not agree to tax themselves to pay for the extremely expensive municipal water supply and sanitation schemes that were needed. The central government itself was also plagued by this paralysing conflict between different ideologies and power networks of equal and opposing strength. A political ideology of *laissez-faire* and non-intervention by central government was most attractive to politicians and the executive in these circumstances because it legitimated the political line of least resistance in a situation where there were too many and too powerful complex, competing voices. An experiment with central fiat was tried in the late 1840s, in response to the official confirmation that death rates were unacceptably high in the big industrial cities. But the vitriolic popular reaction elicited by the nation's first general Public Health Act of 1848, threatening to compel the urban bourgeoisie to spend heavily on their health infrastructure, was so powerful that central government was forced to withdraw from such direct interference in the sacrosanct field of local self-government (local ratepayers' freedom not to tax themselves) for a further quarter century.¹⁶⁹ During the next two decades private interests continued to dominate the pattern of water infrastructure in British industrial cities, with the result that while water supply did increase significantly because of its value as a cheap raw material for industry (now subsidized by government because of its recognized public health virtues), there was still no matching provision of domiciliary connection or of an integrated sewers system.¹⁷⁰ In these circumstances urban death rates fell back from the catastrophic levels of the 1830s and 1840s but there was no absolute improvement over the unimpressive life expectancy levels of the 1820s.¹⁵⁶ Bridging and linking social capital, in the form of trusting relations between the central state and the local communities, or among the fractions of property holders in the cities, therefore remained a rarity in the public health and social policy field in mid-Victorian Britain.

The breakthrough did not come until the 1870s, or even later in some of the smaller towns. It was notably pioneered in the city of Birmingham through the political leadership of Joseph Chamberlain, scion of one of the city's leading screw-manufacturing dynasties, a member of the extensive and well-connected Unitarian congregation and Mayor for three consecutive years, 1873–1875.¹⁷¹ After a century's rapid growth, the influence of the old landed families and their social superiority had finally all but disappeared in a city the size of Birmingham, so that by this time a man like Chamberlain, from a third-generation industrial magnate family, was indisputably part of the unchallenged natural leadership of his city. He was at the centre of a large network of families of these leading local businessmen, joined together both by their commercial interests in the prosperity of their industrial district and through their nonconformist congregations. Chamberlain simultaneously spearheaded both an ideologically transformative social and moral movement, and a practically innovative programme of political economy. Historians know the former as 'the civic gospel', which was literally preached from the pulpit of the Unitarian and Congregationalist chapels in central Birmingham

by leading clerics. Chamberlain's opponents christened the latter the policy of 'gas and water socialism'. The former legitimized the moral and politically energizing imperative for the collective attack on squalor, poverty, and disease; the latter represented the fiscal magic needed to take away the financial pain from the city's ratepayers, at least for long enough that the city achieved its environmental improvements.

Some of the lessons that the British historical case may hold for relating social capital to public health practice appear to be as follows. Commercial and financial success and economic growth may not necessarily be associated with the flourishing of extensive bridging social capital or with linking social capital between agencies of the state and civil society. Instead, only socially exclusionary and sectional networks of primarily bonding social capital may proliferate in these circumstances, such as the Friendly societies and the worshipping congregations and the associated voluntary associational life of early and mid-Victorian Britain. This sectional and bonding social capital can particularly manifest itself in an incapacity or unwillingness to take expensive collective decisions on the part of the community as a whole. If the true purposes and characteristics of networks of association are not properly evaluated, there may be much confusion and conflicting results in studying the relationship between social capital, economic growth, and collective political action. Liberal, market-oriented societies may appear to be rich in voluntary associational life, a feature which has been emphasized by many leading social capital exponents, such as both Robert Putnam and Francis Fukuyama. Yet if these associations are sectional in their goals and too exclusionary in their membership, this may remain primarily bonding social capital only, and thus may impede the articulation of collective interests and the development of extensive bridging and linking social capital.

It was therefore crucial that Chamberlain's social networks were wide-ranging and multi-faceted. Within Birmingham, he benefited from a decade's patient prior work by his loyal Liberal party lieutenants, who had for the first time in British history built up a matrix of permanent party political associations right down to ward-level all across the city. This was specifically an organizational response to the Second Reform Act of 1867, which doubled the proportion of working-class men who had the vote, making their votes critical to electoral success. Chamberlain was, thus, the leader of a thoroughly 'embedded' set of networks, which crucially crossed social class and religious divides, representing a balance of bonding, bridging, and linking social capital all working together. A key element of his successful political strategy was his capacity to offer a genuine appeal to the increasingly empowered and self-organized working class. Meanwhile, his range of contacts also embraced all three key dimensions of power in his society: religion, scientific or technical knowledge, and wealth.

The British historical example also indicates that explicitly moral rhetoric and values (in the 19th century this was popularly expressed in the language of religion, applied to economic and social relationships) must be successfully harnessed for the cause in question if bridging and linking social capital is to be mobilized in order to move an entire complex community, such as a city the size of Birmingham, towards a collective goal. Science and technology, alone, is not enough. British water engineers and public health doctors technically

knew how to construct a sanitary environment for a city with a domiciliary water supply and a mains sewers system since at least as early as the 1840s, but it took a religiously infused moral movement to motivate the mobilization of collective will.

Furthermore, the precise details of language, rhetoric, and policy are extremely important in accounting for the success of Chamberlain's programme; and, closely related to this question of political presentation skills, he took the fiscal sensitivities of his diverse audience extremely seriously and devoted a great deal of effective attention to those problems. He addressed directly the principal objection of small ratepayers, which had blocked collective spending throughout the mid-Victorian decades of death in British cities. He devised two extremely effective responses to the powerful objections of the petty bourgeoisie. Firstly in his political rhetoric, he ingeniously undercut and subverted the ratepayers' perennial call for 'economy' in municipal affairs by arguing that the ratepayers were mistakenly backing false economy and that 'true economy' lay in investing in their city today so as to have healthier, more skilled, more educated, more productive, and more competitive workers and citizens tomorrow. As a practical man of business with a proven, enviable and unimpeachable track record, Chamberlain's interpretation of 'economy' commanded respect among the citizens of his town. Secondly, he used his financial genius and contacts in the City of London to innovate long-term, low-interest loans (on the security of the city's rates) to buy up productive monopoly services in the city, such as gas supply and transport, thereby raising revenue from a form of indirect taxation to fund the city's social and health services and various capital projects of improvement. Between them these novel ploys quietened the anxieties of the ratepayers for a generation—long enough to bring into being the crucial environmental improvements and a range of local preventive health and social services. By the end of the century all other cities of any size had followed the lead of Chamberlain, rebuilding and sanitizing their urban environments with the massive revenue flows generated by owning local monopoly services and utilities.¹⁷² Central government, meanwhile, had also become integrally involved, but primarily as a facilitator of local initiatives and energies, providing loans, and inspection services, and generalizing best practices, rather than attempting to direct developments from the centre. The principal study of central-local government relations in this period has concluded that central government officials operated in a diplomatic mode in their relationships with local authorities, almost a model of linking social capital in practice, respecting the autonomy of the latter.¹⁷³

What, then, are the valid, more general inferences of relevance to social capital and issues of health and welfare from this episode in the history of the world's first industrial society?

Firstly, British economic history indicates that a nation which places too much emphasis on the accumulation of capital in private hands as its primary objective for economic growth while abdicating responsibility towards the less fortunate in society—a direct implication of 'free market' growth models—may well be paying a high price in terms of bridging and linking social capital formation. Consequently both its environmental and its human capital may also suffer significantly (measured in the British historical case in the rather direct sense of the citizens' life expectancy and biological growth). Those studying

in detail the relationship between social capital and economic success are now increasingly emphasizing the importance of 'co-production' across the false dichotomies of the 'public versus private' and 'market versus state' divides. Research by Chalmers Johnson,¹⁷⁴ Alice Amsden,¹⁷⁵ Robert Bates,¹⁷⁶ Robert Wade,¹⁷⁷ Peter Evans,¹⁴² and Judith Tendler¹⁷⁸ (among others) has shown that sustainable economic success is most likely to occur through co-operative, highly negotiated engagement between 'the state' (often in the form of resource- and infrastructure-providing local government agencies), and local businesses and representative bodies of local workers and residents. The British historical case confirms this, in that Britain's industrial cities were fast becoming unworkable environments, until Chamberlain found a political means to cut the Gordian knot of social fragmentation and distrust and to implement forms of 'co-production'.

Secondly, the British case indicates that it is only when networks of association are as well-developed and as multifaceted as Chamberlain's were, and are geared to comprehending the interests of the political majority in the community, as his were (which enabled him to *know*, understand, and respect—but also deal with—the fiscal sensitivities of the opponents to his schemes), that leaders and policy-makers will, indeed, have sufficiently detailed understanding and knowledge of the society with which they are negotiating, which will enable them to formulate effective programmes, which genuinely facilitate or persuade (rather than merely attempting to 'lead' or coerce) the wishes and interest of the majority of the citizens. This is an example of bridging and linking social capital, of Woolcock's⁷ emphasis on embedded autonomy, and the importance of democratically elected local government as the responsive and accountable 'state' in action.

This leads on, naturally, to a third important issue: political participation. Chamberlain's new politics was developed directly in response to the opportunities for a more democratic and participatory urban politics opened up by the British state's belated enfranchisement between 1867 and 1884 of a large section of the working classes (two in three adult males had the vote by 1885; universal adult male franchise did not arrive until 1918 and female until 1928). Many contemporary developing societies and communities exhibit extremely poor resources in terms of civic political participation, with some important examples such as China formally channelling all political energy through the narrow nexus of the official Party apparatus, while others, such as India, too often making a mockery of their formally democratic constitutions because of the impoverished and socially excluded nature of vast tracts of their citizenry, notably rural peasants and, especially, females. Extensive bridging and linking social capital cannot possibly flourish in these circumstances, where the basic political and institutional ground-rules for citizen participation in the political processes are lacking.

The state is at its most effective in both facilitating and benefiting from social capital when it is operating in a highly devolved form, something we principally associate with the institutions of elected local government. Chamberlain showed that increasingly democratic and vigorous local government, when sufficiently politically responsive to the interests of a wide range of groups in the local community, is the most obvious and effective ally of social capital. One danger in the social capital

literature has been an over-emphasis on voluntary associations, alone, as the key to healthy social capital, and a tendency to cast 'the state' only in the negative terms of an impersonal and monolithic 'big brother' figure. The British historical case indicates, however, that voluntary associations of citizens, alone, can have ambiguous consequences for a community's social capital and its public health, as in the early and mid-Victorian decades in Britain. There is a crucial facilitating role for the state, for elected, representative, and dynamic local government agencies, and for politics and ideas in the formation of the kind of balanced social capital required for promotion of population health under the dynamic conditions of continual economic growth. The recent example of the Brazilian city of Porto Alegre's 15-year experiment with participatory budget-setting confirms the continuing relevance of the historical case of Birmingham and of the bridging and linking social capital analysis presented here, which focuses on the salience of motivating moral ideals, cross-class political leadership, embedded but autonomous local government, and empowerment of inhabitants, resulting in major improvements to the city's population health.¹⁷⁹

IV Discussion

The empirical base of the general social capital story—and the veritable explosion of interest accompanying it across the social and medical sciences—rests in no small part on applied research in the fields of public health and epidemiology. As such, the debates taking place within these fields deserve special attention, and are instructive for broader conceptual and policy deliberations. We have argued that while the current disagreements among the major protagonists in the field of social capital and public health manifest themselves as methodological differences regarding the efficacy of power (access to resources), inequality, or social support networks as the primary determinant of health outcomes, they are in fact better understood as products of an ill-specified (or at least less than comprehensive) theory of social capital. Indeed, closer attention to the current theoretical developments—themselves a product of close engagement with a range of empirical studies—reveals a conceptual framework that provides a basis for resolving the current debates, one that is also consistent with rich historical evidence regarding the emergence and resolution of major public health crises in 19th century Britain.

This framework centres on an analytical distinction between three kinds of social relationships in which individuals are engaged, and, crucially, the nature of the state—society relations in which these individuals and their relationships are inherently embedded. It relies on the distinction between bonding, bridging, and linking forms of social capital. Of course many other things are also required for a 'healthy society' to be capable of consistently using its material resources for the promotion of the population health of all its citizens.¹⁸⁰ One necessary condition, however, will be a balanced distribution of a relatively rich endowment of all three of these forms of social capital. In these circumstances the polity will be constituted by a vigorous, open and politically conscious civic society of mutually respecting and highly varied (in terms of their social identities) citizens and their many associations. In such societies,

individuals and the wide range of associations that represent their interests are in active dialogue and negotiation (since there are certain to be conflicts requiring negotiation) with both their elected local governments and their central state. Without such a health-promoting, balanced development of all three forms of social capital, however, social capital, in any of its three forms, may easily be used as a resource for exclusionary and sectional interests, which may have an ambivalent or even negative consequence for the overall population health of society. It is, then, an entirely contingent question of politics, public morality, ideology, and historical events whether or not the resources of social capital, which necessarily exist in any society, will take on health-promoting or health-degrading net effects.

We would therefore wish to emphasize that this question of negotiated political and ideological contingency is crucial. Social capital is not a magic wand for improving society, nor is it a self-contained comprehensive theory. It is a useful concept, which focuses our attention on an important set of resources, inhering in relationships, networks, associations, and norms, which have previously been accorded insufficient priority in the social sciences and health literature. This is probably partly because they are not easy to categorize, study and measure in their effects. Advances are now being made, but this will continue to be a site for 'work in progress' for some time to come. It is important to remember that it recently took several decades of patient methodological work for the concept of human capital to be accepted as a tractable one by most economists, as it is today.

The theoretical formulation of social capital presented here may offer the basis for reconciling the three different positions on social capital and health outlined above. The oldest school of thought, the 'social support' view of social relationships, would tend to imply that, at least from an individual's point of view, any kind of positive social support is good for your health—the classic case is that of family and friends to get you through a critical illness. This would correspond to an undifferentiated concept of social capital as just all and any networks. Marmot and Wilkinson's inequalities approach has significantly complicated the epidemiological picture by arguing that, at least in the relatively affluent societies which they have studied, the overall patterns of individuals' social relations should be seen in a wider political and historical context, in order to be able to evaluate whether, in the aggregate, they are of net benefit to their health. In societies characterized by steep or by growing inequalities, there will be a tendency for social relationships in general to become less egalitarian and mutually respectful and instead to become more hierarchical and unsympathetic. A general disposition of goodwill towards other citizens will be replaced by one of suspicion and distrust. In turn, this has a range of negative health implications, particularly for those lower down the social status hierarchy, whose perceptions of disrespect for themselves will be harmful to their health. Although their personal friendships may still be helpful to them in fighting ill health—the 'social support' thesis—the overall pattern of the social relationships available to them in such an unequal society may be responsible for an extra burden of illness. This development in the epidemiological literature corresponds to the recognition of the importance of the distinction between bonding and bridging in the social capital literature—not all social relationships are the same and have similar supportive effects, from a health point of view.

While Wilkinson's 'political economy' critics have been content to deny the thesis that the putative socio-psychological pathways of health damage are the most important, they agree that conditions of heightened inequality are harmful to health. They would prefer, however, to emphasize the importance of the deficient material living conditions of the poor and the political and ideological factors, which result in some societies accepting conditions among some of their populace which other societies would find intolerable. This focus on the causal importance of the prior and ongoing history of the political and the ideological would correspond, in social capital theory, to the acknowledgement of the significance of questions of relationships between citizens and the state, issues which are raised through a focus on linking social capital, as an additional, distinctive category to that of bonding and bridging social capital. This would suggest that none of the three epidemiological schools of thought is wrong, in its own terms, about the relationship between social capital and health, but that, like the sequence of conceptual developments of social capital theory, they represent successively more comprehensive formulations of the scope of the causal factors involved in analysing the relationship between health, citizens, society, and, ultimately, the polity and the state.

V Policy conclusions

It was stated earlier that we would attempt to outline the policy implications which such a revised theory of social capital would have for the public health field, particularly in addressing the issues of inequality and health in relatively affluent societies, which lie at the heart of the dispute between Wilkinson, Lynch, and others. We would argue that taking seriously the concept of linking social capital problematizes in particular the quality of relationships whenever and wherever resources might flow across perceived power gradients. Potentially health-enhancing resources may be primarily material (a new hip replacement) or may be purely informational (where to go to get a hip replacement or the knowledge that one has a right to have a hip replacement), but they are most frequently an alloy of both (getting the hip replacement *and* the right advice about post-operative rehabilitation). Improving human health requires both the entitlement to appropriate 'material' needs and the capability to benefit from it, which is so often mediated through social relationships.

Lynch and the 'neo-materialists' are right to continue to emphasize that even in the most affluent societies in the world, the poor can still suffer major material deprivations that directly cause their ill health. Wilkinson and Marmot are right to stress that the perception of living in an unequal and unjust society can be so corrosive of social relationships that this can have tangible consequences on the health of the population. The concept of linking social capital makes the connection between these two through the issue of the quality of health services information and delivery influencing equality of access to health education and health knowledge. There can be little doubt that the maintenance of population health at historically high levels in affluent societies depends on a relatively high proficiency of health knowledge among citizens, both in the sense of knowing how to keep themselves healthy in the

potentially highly toxic and dangerous urban environments we mostly inhabit, and having the expertise and confidence to access medical and other social services when they are needed.¹⁸¹ In affluent societies that allow themselves to become particularly unequal, the underprivileged will not only suffer substantial health-compromising material deprivations, but there will also arise problems of social distance and the likelihood of deteriorating mutual respect between the haves and have-nots, if a sense of injustice arises. While Wilkinson and others have been exploring the possible direct health consequences of this, the linking social capital concept indicates that *in addition* to such physiological impacts, if relationships of trust and respect deteriorate between the poor and the range of more privileged people in their lives who are involved in delivering the essential public services of education, health, and social security, then the capacity of the poor to acquire, utilize and benefit from health-enhancing material goods will be seriously compromised.

The interaction of all these factors has, for instance, been persuasively expounded in Klinenberg's comprehensive analysis of the causes of the more than 700 fatalities due to the 1995 heat wave in Chicago.¹⁸² These were particularly concentrated among males aged over 65. Klinenberg's comparison of two matched, poor districts showed that the disproportionately high death-rate in North Lawndale was indeed correlated with material deficits, notably such as non-ownership of air-conditioning. However, there was also a strong correlation with living alone and the strongest correlation of all was with absence of any social contacts, extending to many deceased males being found locked in their own apartments, reflecting the chronic state of fear of neighbours in this downwardly spiralling, 'abandoned', black immigrant part of town. By contrast, adjacent South Lawndale (also a poor area in which many homes lacked air conditioning) benefited from a vibrant Latino community in which people felt relatively safe in public spaces. It exhibited starkly contrasting, disproportionately low mortality during the heat wave. Thus, social capital and Wilkinson's emphasis on the social psychology of dynamic trends in inequality are clearly implicated as playing a major role, along with neo-material deficits. And finally, standing behind both of these factors, lies the causal role of the changing political economy and culture of the US. The society which only two decades earlier had responded in full to Lyndon Johnson's call for an 'unconditional war on poverty' to honour the wishes of their assassinated young President, had now, during the decades of the 1980s and 1990, acquiesced in the abandonment of whole districts like North Lawndale. Heat waves as severe as 1995 had occurred in Chicago before; in 1964, for example, a comparable heat wave generated no death peak, as many without air-conditioning had felt safe enough to sleep outside at night in the parks.

Where future policy is concerned, the social capital framework presented here indicates that in British society, which remains a strongly class-divided culture, a key problem with the universalist national health service and welfare state has been that, while it delivered a reasonable amount of 'material' inputs to the poor, this was done in the context of a relative deficit of sensitive linking social capital, whose most obvious and tangible, health-compromising results have been the profusion of poorly designed housing estates for the

poor.^{183,184} In the US, during the last two decades there has been a failure to deliver even half-adequate material assistance to the very poor and while the society as a whole pays lip-service to the ideals of a citizen republic of equals, its bridging and linking social capital is in tatters.⁶ In Sweden, by contrast, there has been a record of adequate material assistance to the poor and much more effective linking social capital than in either of the other two cases.¹⁴⁸

In view of these considerations, it is a particularly ironic misconception entertained in some quarters that the social capital approach to both the promotion of population health and also to the improvement of public services in general in a democratic society necessarily might represent a 'cheap' option and might be lacking in political radicalism. It can be seen that social capital theory, embracing not only bonding and bridging but also linking social capital, places great emphasis on both the quality and the quantity of relationships between all citizens. It also places great emphasis on whether or not these relationships are founded on mutual respect between people, differentiated either horizontally by their varying social identities or vertically by their access to different levels of power and authority. Commitment to the goal of a society of mutually respecting citizens has the potential to motivate an extremely radical political economy, carrying strong redistributionist implications.¹⁰⁸ The social capital perspective also informs us that if we normatively approve of the goal of enhancing population health, we cannot achieve this through material inputs alone, or simply through 'technological fixes', whether 'imposed' or magnanimously 'granted' by those with superior resources. Material assistance will almost certainly be necessary in most contexts; but equally important will be attention to the quality

and quantity of relationships, which carry and make interpretable any such material or technological transfers.

In the public services and in developed societies in general it is in fact these precious resources of human relationships, effort, and care—or labour, to use an old fashioned word—that are crucial, rather than material inputs, alone. Human expertise, time, and attention are also, inevitably, increasingly expensive to deploy. Taking social capital seriously in the context of health promotion in rich or poor countries is, therefore, not in any sense a cheap option; it is an additional dimension—and one necessarily requiring additional costs—that too often has been neglected.

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KEY MESSAGES

- The debate within epidemiology between proponents of a neo-materialist and a psycho-social interpretation of the relationship between health and inequality may benefit from the application of a more-developed theory of social capital.
- A new theory of social capital is put forward, distinguishing linking social capital from the more familiar bonding and bridging forms. State–society relations and considerations of power are thereby brought explicitly into the social capital framework of analysis.
- The relationship between public health, norms and networks of civic society, and the changing political economy of 'the state' may then be studied in an integrated way, as illustrated by a brief review of 19th-century British history.

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Commentary: 'Health by association': some comments

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That 'social capital' has been, at least, faddish in international policy and social scientific circles during the last decade is beyond doubt. After several decades of intellectual and political hegemony on the part of an individualistic philosophy that

claimed that 'there is no such thing as society',¹ advocates of the social capital perspective argued for renewed emphasis on the importance of social networks and norms in many spheres of our lives—from job placement to democratic governance to health. To be sure, in a number of specific sub-disciplines, such as the sociology of labour markets or criminology or social epidemiology, researchers were already well aware of the

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