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Known But Not Done: How Logics of Inaction Limit the Benefits of Urban Green Spaces

Julian Dobson*, julian.dobson@shu.ac.uk (Sheffield Hallam University, Centre for Regional Economic and Social Research) and Nicola Dempsey, n.dempsey@sheffield.ac.uk (University of Sheffield, Department of Landscape Architecture)

*corresponding author

Abstract

Empirical research has long shown positive connections between urban green spaces and their users' wellbeing. But compelling evidence does not always lead to appropriate investment. In a study of the contribution of urban nature to mental wellbeing in Sheffield, UK, the authors identified greenspace investments that could lead to improved wellbeing and discussed their implementation with local stakeholders. However, this qualitative study also revealed a series of reasons why stakeholders in Sheffield would not proceed with such investments. Using the concept of 'logics of inaction' (Sharman and Perkins, 2017) to examine stakeholders' reasoning, this paper considers why such logics arise. It finds a mismatch between available evidence and the evidence practitioners say they need to justify investments in green space. One consequence is that practitioners' capacity to act on new knowledge is reduced, limiting innovation and potential benefits.

Keywords: urban greenspace; wellbeing; empirical evidence; logics of inaction; greenspace governance; decision-making; institutional logics

1. Introduction

Extensive research demonstrates positive connections between natural environments and wellbeing (for reviews, see Prescott et al., 2016; Douglas et al., 2017; WHO 2017; Pritchard et al., 2019). This paper considers why actual decisions on investing in urban green spaces fail to reflect this body of evidence. To do this, it examines how decisions are made on proposed investments that would have recognised wellbeing impacts.

The paper stems from Improving Wellbeing through Urban Nature (IWUN)[1], a multi-disciplinary study of the role urban nature plays in mental wellbeing in Sheffield, a northern English city. In common with numerous cities in the global North, Sheffield has been affected since the 1970s by deindustrialisation with its associated impacts on local populations (Turok, 1999). Since the financial crisis of 2007/08, it has been subject to the onset of 'urban austerity', typically implemented through the withdrawal of support or finance for municipal government (Peck, 2012).

The authors first identified a series of potential investments in green spaces that were supported by academic research and practitioners' experience. We then worked with more than 90 local stakeholders to examine which investments would be locally appropriate, and discussed the decision-making processes that would determine whether greenspace investments would take place in practice. This deliberative process revealed a series of 'logics of inaction' (Sharman and Perkins 2017), or reasons for not proceeding with actions that the evidence suggests are required. The paper considers why such logics of inaction arise and their consequences.

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[1] In our research we use the term 'urban nature' to include incidental flora and fauna, but this paper focuses specifically on public green spaces.

Through this examination, we show that the wellbeing benefits of urban greenspace are contingent, both on local contexts and on the processes through which evidence is or is not translated into practice. We highlight that greenspace investment decisions are predicated on an interpretive process, in which evidence is sifted and selected according to political and financial criteria.

We begin by reviewing the evidence on the relationship between urban green spaces and mental wellbeing, which has formed the baseline for the empirical research reported here. We briefly describe how IWUN, a citywide research project in Sheffield, has added to this baseline. One of the project's aims was to influence policy and practice, and the evidence provided the starting point for discussions with local stakeholders. These discussions sought to identify which greenspace interventions could do most to support mental wellbeing in the Sheffield context.

In section 3 we explain the theoretical underpinning of our analysis. Institutional scholarship highlights that research evidence sits within a complex mesh of individual and organisational 'rules, practices and narratives' (Lowndes and Roberts, 2013, p.41). Within this mesh, 'knowledge' is understood as fluid, interpreted, and contested. Attention thus needs to be devoted to 'logics of inaction' (Sharman and Perkins, 2017): the reasons why justifiable actions are not taken. Section 4 explains our research methodology and describes how greenspace interventions and decision-making processes were identified. In section 5 we present our findings using the lens of logics of inaction, illustrating the arguments and explanations offered in practice for not taking the actions that practitioners themselves recommend.

In conclusion, we highlight the interpretive processes governing how evidence is or is not translated into practice. We note that such interpretation is politically driven within the climate of 'austerity urbanism' which has prevailed internationally and in the UK (Peck, 2012; Hastings

et al., 2017), posing particular challenges for the management and upkeep of green spaces (Mell, 2017). We conclude by calling for closer scholarly attention to situated practices and the use and non-use of evidence within practice settings.

2. Green Spaces and Wellbeing

There is a wealth of literature on the positive benefits that natural environments have for human wellbeing. Examples highlighted in the review articles referenced in the introduction include reduced stress; improved physical health including reduced risks of heart disease and obesity; greater life satisfaction; better social connections; and deeper connections with nature. Give the urban context within which the study sits, we use the term 'green spaces' here as a shorthand to cover a wide variety of environments, while acknowledging the contested character of labels such as 'green' and 'nature' (Gandy, 2015).

As part of our research we reviewed over 120 papers on the subjects of urban greenspace and mental wellbeing, including the review articles cited above, empirical research findings (e.g. White et al., 2013; Roe et al., 2017), policy review documents (e.g. Miller et al., 2008) and guidance (e.g. Design Council, 2014). Some of this 'grey' literature related specifically to Sheffield (e.g. Sheffield Waterways Strategy Group, 2014). The literature review was conducted through the search engines Scopus, Web of Science and Google to select relevant academic and 'grey' policy and practitioner literature. The main search terms were 'mental health', 'urban green space', 'urban nature', 'wellbeing', 'green prescription', 'healthy spaces', 'green space benefits', 'nature connectedness' and 'green space usage'. The literature review process required the examination of papers about specific interventions (e.g. 'a dose of nature' (Shanahan et al., 2015) and 'green exercise' (Pretty et al., 2005), and practices such as *shinrin-yoku*, or forest bathing (Park et al., 2010). Articles included studies of specific types of spaces such as

neighbourhood green spaces (Sugiyama et al., 2008); green schoolyards (Chawla, 2014); blue spaces such as rivers (Gascon et al., 2017) and specific elements of the landscape such as street trees (Taylor et al., 2015). The purpose of the literature review was to identify interventions that might be considered effective for wellbeing in urban Sheffield. At this initial stage, all relevant interventions were included and categorised thematically to facilitate discussion among stakeholders in the second stage of data collection. We did not focus solely on an intervention as a physical change to urban green spaces (which has been done elsewhere – e.g. Hunter et al., 2015) as it became clear in the literature and in subsequent discussions with stakeholders that this would omit relevant potential interventions. The broad categories of interventions were therefore:

• capital investment in green spaces, e.g. re-using vacant land as temporary or permanent green spaces (Branas et al., 2011);

• maintenance, support and policy for green spaces, e.g. increasing the variety of planting in green spaces (Hoyle et al., 2017);

• social and healthcare interventions, e.g. gardening projects and shared allotments (Buck, 2016);

• cross-cutting interventions to facilitate specific greenspace initiatives, e.g. changing educational curricula to support outdoor learning (Natural England, 2015).

Despite the proliferation of research, few studies consider how knowledge of 'what works' may be translated into appropriate decisions. Recent research has highlighted the absence of 'a quasi-rational policy cycle into which evidence from academics can just slot' (Matthews et al., 2017). To understand this process of translation, we needed a better grasp of the contested

context into which the increasing evidence of the effects of natural environments on wellbeing is being applied in practice.

3. Logics of Practice and Inaction

'Practice' refers to a web of interactions between individual actors, organisations and the institutions of society (the state, the market, the family and so on). These interactions spawn collective arrangements for the delivery of goods and services. Such arrangements are governed by a multiplicity of values and rationalities (March and Olsen, 1989; Powell and DiMaggio, 1991; Thornton et al., 2012). The notion of 'institutional logics' (Friedland and Alford, 1991) describes how such rationalities operate at a collective level. An example is the logic of public service efficiency prevalent within English local authorities. Practices of contracting out services to the lowest bidder were established through legislation on compulsory competitive tendering during the 1980s. Despite this legislation being abolished over 20 years ago (1998), over 40% of local authorities recently reported using private contractors, mainly for reasons of cost-efficiency (Dempsey et al., 2016), demonstrating the persistence of this logic in practice.

March and Olsen (1989) argue that 'logics of appropriateness' arise within organisations and establish organisational cultures. Within such settings, meanings and interpretations become 'political resources' in struggles for change and influence (Zilber, 2002). Logics can be locally driven and differ according to local context.

Three points are pertinent when considering the interplay between what we know (evidence) and what we do (practice). Firstly, practice is undertaken within a context of durable institutions, such as local government, that shape actors' rationalities in the long term: for example, where they have long been the provider of specific services. Secondly, logics, values and cultures not only shape practice, but are shaped by it: following the 'rules of the game' (North, 1990) is, as

Fligstein (1997) observes, a process of exercising social skill - the 'ability to motivate cooperation in other actors by providing those actors with common meanings and identities in which actions can be undertaken and justified' (p. 398). Thirdly, the infusion and selection of knowledge is established socially within communities of expertise (Haas, 1992). Actors select the information they will use, how they deploy it and what values they attach to it within such communities.

These processes can *prevent* as well as *enable* change. One example is the national Liveability programme in the early 2000s (Dempsey et al., 2015). In Sheffield, a cross-sector project was awarded funding because of its commitment to new collaborative practices. Once funded, however, the project encountered insurmountable obstacles to partnership working. The longstanding practice of trade union involvement in negotiating new working contracts effectively blocked plans to share budgets because of the potential job losses.

The implications for research that seeks to inform, influence, or change public policy are evident. In analysing the use and influence of evidence within practice, and the rationalities and choices of practitioners, attention needs to be paid to practitioners' own understandings of why action is or is not taken: 'having knowledge and deploying it are two different things' (Nursey-Bray et al. 2014, p. 113).

Sharman and Perkins' notion of 'logics of inaction' (2017) emphasises that even after policy decisions are made, controversies over legitimate knowledge can serve to delay and dilute implementation and justify inaction. They define logics of inaction (p.2282) as 'resonant arguments or frames that provide the rationale for maintenance of the status quo, or increased conservatism' once policy has been enacted. Sharman and Perkins focus on post-decisional processes in the context of climate policy at a government level; in this paper we extend the idea

of logics of inaction to cover the failure to make appropriate decisions, focusing on local practices rather than national policies. This study focusing on Sheffield permits an in-depth exploration of such local decision-making processes.

4. Research Approach and Methods

To address the gaps in knowledge identified above, this paper calls on research conducted in the three-year IWUN study, a deep case study (Yin, 2009) focusing on Sheffield, England's fifth-largest city. Sheffield has a wide range of green spaces varying in quantity, quality and distribution across the city. Natural spaces constitute 70 percent of the city's land cover, including 80 public parks and 650 other green and open spaces managed by Sheffield City Council (SCC).

IWUN involved four strands of simultaneous research. Details of the methods employed are in the papers referenced below. The first was an epidemiological study (Brindley et al., 2018; Mears et al., 2019a; Brindley et al., 2019; Mears et al., 2019b). A statistical approach was used to examine the relationships between green spaces in Sheffield and health and wellbeing. To understand whether there were green space variables explaining health equalities, medical practitioners' data was accessed for 345 areas of Sheffield, on self-reported health, depression, and severe mental illness while controlling for confounding factors such as income deprivation, air pollution and numbers of smokers.

The second strand drew on narrative approaches (Andrews et al., 2008) to explore city dwellers' experiences of 'nature' and natural environments (Birch et al., 2020). Life course interviews with 55 adults and young people aged 17-86 years were conducted to explore how urban residents from diverse backgrounds narrate their own histories and values around nature, health and wellbeing. Purposive sampling was used to include Black, Asian and Minority Ethnic

residents (n=32) and people living in areas classified as urban deprived (n=40) to hear from people previously considered 'low users' of nature (Natural England, 2015).

IWUN's third strand explored how urban natural environment characteristics deliver wellbeing benefits, calling on a large-scale randomised controlled trial with data collection via a smartphone application (McEwan et al., 2019). The app included both an intervention based on noticing the good things in urban nature (Richardson and Sheffield, 2017) and wider data collection of users' exposure to natural environments.

The fourth strand was in two parts. The first (the focus of this paper) aimed to identify feasible and acceptable green space interventions that could bring positive mental health outcomes for Sheffield's residents (Dobson and Dempsey, 2018). We drew on the professional and tacit knowledge (Pozzali, 2008) of stakeholders, engaging with greenspace managers, members of voluntary and community groups, planners, public health professionals, local physicians and community members through events, focus groups and one-to-one interviews. The second part of the fourth work package (Dobson et al., 2019) aimed to generate a holistic framework to analyse the costs and benefits of the interventions selected by stakeholders (Vandermeulen et al., 2011). Harnessing the expertise and experience of professional and lay stakeholders, we first sought to identify and estimate the costs and benefits of the selected interventions, considering their impact on associated urban ecosystem services. We then determined the extent to which cost-effective interventions may help to generate urban natural environments optimised for health and wellbeing effects.

Drawing on Eisenhardt's approach to case study research (1989) we developed an iterative process of literature review, intervention selection, reflection and discussion (Table 1) for the research discussed here. Through our literature review (discussed in section 2) we identified

interventions found to be effective for wellbeing. We presented these at a stakeholder event

attended by 30 practitioners and community-based volunteers involved in the design,

management and use of local green spaces. These individuals were selected on the basis of local

knowledge and/or prior engagement with the IWUN project. At this stage the long list consisted

of 29 interventions. A further six were added at the stakeholder event, drawing on attendees'

observations and expertise.

[insert Table 1]

This list of interventions was then shared with members of eight different stakeholder groups

(92 individuals) who were asked to identify their top five preferences. Table 2 shows the

interventions shortlisted as a result of this process.

[Insert Table 2]

These 92 stakeholders were consulted on the basis of their specific professional or practical

expertise relating to green spaces. The organisations/interests represented were:

- Public Health, SCC

- Sheffield Green Spaces Forum

- Parks and Countryside Department, SCC

- Planning Department, SCC

- National Centre for Sports and Exercise Medicine

- Sheffield and Rotherham Wildlife Trust

- SCC's People Keeping Well partners (civil society organisations)

- Royal Town Planning Institute's regional branch

Of these stakeholders, we conducted six focus groups with 28 participants who were

selected for their knowledge of green spaces, health and wellbeing and relevant decision-making

processes. They included a group of national clinical experts, facilitated by the Centre for Sustainable Healthcare. It was not possible to arrange focus group discussions with three of the eight groups listed above because of their workloads and time availability. We therefore arranged six one-to-one semi-structured interviews to address gaps in the perspectives offered through the group discussions. These interviews were held with two primary care medical practitioners; two therapists; an academic specialising in physical exercise; and a housing developer. As the data collection progressed, a number of research questions were asked, including the one we focus on here: what factors underpin decisions to implement green space interventions in the city of Sheffield?

Focus group participants and interviewees were asked to explore why they had selected the preferred interventions; the benefits they attached to each; and why decision-makers might approve or ignore a recommendation to invest. We found more instances when decision-makers would ignore recommendations to invest than approve. To understand this finding, we turned to 'logics of inaction' to explore the decision-making process in more depth. Data from the focus groups and interviews were manually coded and analysed thematically. This coding revealed seven themes of logics or rationales for approving or rejecting an investment proposal. These were:

- Enhancing wellbeing
- Financial logics (savings or costs)
- Wider economic logics (the local economy)
- Civic and community priorities
- Organisational logics (how services operate and decisions are made)
- Environmental logics (e.g. biodiversity)

- Wider social logics (such as equality and diversity)

Within each theme, we coded for logics of action (reasons to approve an intervention) and logics of inaction (reasons to reject an intervention). While we found 26 sub-themes across the seven categories relating to logics of action, we found 29 relating to logics of inaction. More importantly, while the action logics outweighed inaction on the wellbeing, environmental and community themes, the themes most closely related to actual decision-making – finance, economy and organisational logics – revealed a strong emphasis on inaction. Examples from this material are discussed below.

5. Findings: Knowledge, Practice, and Logics of Inaction

Our findings highlight three salient issues regarding the relationships between evidence and practice. Firstly, while much evidence is specific, the practices relating to greenspace and wellbeing tend to be generic. Secondly, there is a disjuncture between the evidence available and the evidence practitioners claim they need. Thirdly, and our main focus here in light of the perceived difficulties in applying evidence in practice, logics of inaction are reinforced when investment decisions are made. These three issues are interlinked and help to explain why a growing volume of academic research does not necessarily result in more appropriate (or even better informed) policy choices.

The relationship between specific research and generic practice is an issue that confronts a broad swathe of social science, but is particularly pertinent when dealing with public places. Public parks and green spaces, by definition, are open to everyone. Connections with nature are both subjective and varied, underlining the significance of everyday and incidental encounters with the natural world (Dobson et al., 2020). Our intervention selection exercise emphasised the importance of mediating factors - including physical facilities and organised activities - in

realising the benefits of green spaces. Understandings from practice emphasise that pathways to wellbeing are opened or closed through subjective and material links that facilitate or, if absent, prevent the achievement of salutogenic effects. This was neatly summarised by a public health expert:

> A loo, a brew and something to do – it's not just a loo and a brew, it's a reason to be in the green space, whether it's wreath-making at Christmas or an Easter egg hunt or a duck race, it's something to get people engaged.

The second issue is that the evidence available is not the evidence practitioners claim they need to justify investment. Some studies emphasise the value and efficacy of existing practice (e.g. Ward Thompson and Aspinall, 2011). But practitioners told us they needed to attach economic values to such findings. One community worker described how the data generated through a social prescribing initiative were dismissed by potential funders because of the failure to demonstrate cash savings:

> …from day one of doing that work, they've got really consistent data about the impact it has on individual people's wellbeing, on how much it makes them feel good. But the reality is that's not getting them any money to carry on doing the work, it's not encouraging people to invest. We know it makes people feel good, anybody would be able to say that, and what they're being consistently asked for is data around cost savings.

Similarly, a parks officer suggested that our own research should seek to identify economic savings associated with investment in green spaces:

…what we need to do is be better and savvier at using statistics, using the work of

yourself and research in the city to say, Parks and Countryside have got so much *x*, it

provides *y*, the benefits are pounds and economic savings.

The third issue is that even where policy goals are seen in terms of disease reduction or

improved quality of life rather than purely in monetary terms, there is a mismatch between the

evidence available and proposed investments. This mismatch highlights the difference between

evidence and argument. What is evidenced is not necessarily a sufficient argument for changing

policy or practice. An interview with a health academic underlined the need for an alternative

argument:

It's unlikely that we will convince people to [invest] purely on a health argument. If we

could we'd have won that argument years ago because the evidence is overwhelming, so

it's going to need to be a different argument. Probably a more politically attractive

argument around the economy.

In Sheffield in a climate of austerity, the argument that practitioners favour is that investment

in green spaces will boost the local economy. This could be by attracting new businesses,

improving physical and mental wellbeing to the extent that it gets more people into paid

employment, or directly reducing the costs of ill-health to public service providers. The difficulty

is that there is no direct evidence to support these propositions, and the indirect evidence is

considered insufficient by decision-makers. The cost, in time and money, of amassing such

evidence is likely to be prohibitive. The organisations that lament the absence of evidence

seldom have the resources to gather the evidence they say they need. The health academic quoted

above cited one programme to increase physical exercise that had attracted funding, explaining that the evidence to support it was a combination of knowledge and guesswork:

> We've used the academic evidence as part of a jigsaw puzzle … and we've combined that with local tacit evidence, more substantive theory, and a few hunches if you like, and chucked that into a pot and said okay, this is our best guess based on the totality of that information, local insight, academic literature, which is not always context specific…

The programme referred to, however, was funded from money set aside as a legacy from the 2012 London Olympic Games, and not from core public service funding. The arguments and evidence required to bid for already earmarked special funds are predicated on investment being available; the arguments and evidence required to redirect or supplement existing spending need to convince purseholders that better results can be obtained that justify the investment.

Such mismatches between evidence and argument serve to reinforce pre-existing logics of inaction. While our research participants told us the investments they had recommended were necessary and justifiable, in follow-up discussions they then provided numerous reasons why investments could not be made. These reasons do not offer insuperable barriers to action, but show how inaction is rationalised and institutionalised. Table 3 groups these logics of inaction thematically, illustrating how any justification of action (e.g. for health, economic or civic benefits) is met with an opposing logic.

[insert Table 3]

The interviews and the rationales cited do not record actual decisions taken: this would call for more detailed longitudinal research. However, the cited arguments reveal a prevailing culture in which new investments are viewed as risky. Although their potential outcomes are welcome

and desired in principle, 'risky' investments are viewed as lower-order priorities than actions that demonstrate quantifiable returns.

In Sharman and Perkins' study of logics of inaction, the authors situate prevailing rationalities within an arena of contested knowledge. They pose the question (p. 2284) of 'why particular logics of inaction are mobilised and achieve political traction in certain contexts more than others, and whether such logics are predicated on knowledge controversy or framed outside of cognitive disputes', mentioning, among other factors, the impact of the UK government's austerity agenda. Our study would support the view that austerity is shaping 'civic epistemologies' (Jasanoff, 2011) at a local level, given the consistent framing by interviewees of local policy and practice decisions as financial trade-offs requiring justification in economic terms. One consequence is that not only is it harder to gain support for new investment, but existing capacity is also reduced to concentrate resources on the most pressing problems. As one community worker told us:

> It's well known that prevention is better and more effective in the long term. But at the moment in the current climate everybody's fighting fires and not actually able to put that funding into the preventative services.

The practical outcome of prevailing logics of inaction is not so much that knowledge is contested, as in Sharman and Perkins' study, but that the capacity to act from knowledge is removed. The practitioners we interviewed believed the investments in green spaces they had selected were necessary and justifiable in supporting wellbeing, but could not currently be justified in the terms demanded by financial decision-makers. One parks officer admitted that 'I don't even try anymore'. Logics of inaction become self-reinforcing: after repeated rebuffs, practitioners focus on what they believe they can achieve rather than what the evidence shows.

6. Conclusion: Interpreting Evidence in Context

Logics of inaction are of interest because they shed light on why intentions are not implemented, despite the weight of evidence and alignment with policy objectives. Our findings highlight the processes by which evidence is both selected and interpreted to fit local circumstances, revealing how greenspace management in Sheffield manifests logics of inaction in practice. The dismissal of evidence as insufficient, for example, affords urban decision-makers a rationale for delaying action. This allows them to inhabit a limbo where they do not give up on their aspirations, but choose to defer commitment, buying themselves time within a hostile political and financial context. Even where evidence is seen as convincing, a lack of financial or staff capacity provides the rationale for inaction.

At the UK government level, the use of academic evidence is low, and policymakers are more likely to rely on the more policy-focused and accessible outputs of think tanks (Kenny et al. 2017). Our findings also suggest that evidence is selected by policymakers on the basis of what one interviewee described as 'politically attractive' arguments: in other words, arguments that support previously approved priorities and policies that are therefore institutionally embedded. This suggests that while academic evidence may be readily co-opted to support existing policies, it is less effective in changing policy. The search for specific evidence that demonstrates the economic, social or medical value of urban nature, then, is unlikely on its own to change the beliefs, values and logics of decision-makers.

Understanding the wellbeing effects of green spaces and the role of evidence in practice demands attention to context. It is impossible to consider the context of greenspace policy and practice in the UK without recognising the effects of a decade of spending cuts. Between 2010 and 2017/18 central government funding for English local authorities, which are largely

responsible for public green spaces, plummeted by 49.1% in real terms. Even taking into account money raised through charges and commercial activities, local government spending dropped by 28.6%. This occurred at a time of rising demand for services, particularly social care (National Audit Office, 2018). Lowndes and Gardner (2016) describe the impact as 'super-austerity': municipalities implementing successive waves of public service cuts, 'compounding original impacts and creating dangerous (and unevenly spread) multiplier effects'. Such impacts are transmitted to the poorest sections of the population (Hastings et al., 2017).

The impacts of austerity are also transmitted to the most vulnerable services. As in many other countries, there is no statutory duty for UK local authorities (or anybody else) to provide and maintain publicly accessible green spaces. Many such spaces exist as a result of philanthropic donations or past land acquisitions. But with no duty of care attached, the discretionary budgets allocated to greenspace provision and management are neglected in comparison with more pressing statutory obligations and among the first to be cut (Heritage Lottery Fund, 2016). In Sheffield, where the city council had to make cuts totalling £238 million between 2014 and 2018, the parks and green spaces budget fell from £7 million (2014/15) to £4 million (2017/18) (Crowe, 2018).

Austerity does not simply bring about budget reductions and the loss or decline of services. It changes the rationalities of the actors who have to manage this decline, because actors are governed by their understandings of what behaviour is appropriate in a given situation.

So to improve practice we must pay attention to the contexts in which decisions are taken, investments are made, and greenspace users experience wellbeing effects. Interventions do not directly cause wellbeing effects, but are context-changing mechanisms (Pawson and Tilley, 1997) that will have different results in different situations. Without support for such context-

changing mechanisms, the risk is that the benefits of green spaces will accrue mainly to those who are already best placed to enjoy them: the younger, fitter, healthier and more affluent members of society. More attention should therefore be devoted to understanding and increasing practitioners' agency in promoting potentially context-changing interventions. Rather than focusing predominantly on the benefits and value of green environments *per se*, we would urge researchers to investigate further the often ordinary ways in which such benefits might be maximised, and the policy and practice measures that might facilitate this.

Our focus on context leads us to suggest that further research might usefully explore which interventions work best to alter and improve contexts, what actors and resources are associated with them, and how perceived benefits are spread among different population groups over different periods of time. Coupled with such context-focused research, studies should focus on how logics of inaction might be challenged and overcome. At present there is limited evidence to suggest that environmental or social arguments have been persuasive in attracting additional investment for green spaces.

Given our emphasis on contextual factors, we acknowledge that this research is limited by the particular circumstances of Sheffield, although many other cities share comparable histories and challenges. As a deep case study focused on one city, our findings come with the caveat that they are not directly generalisable; however, they signal a more general phenomenon that has hitherto received little attention and we believe will apply to other cities, particularly those with similar post-industrial characteristics. Furthermore, logics of inaction are found in a wide variety of global contexts (Sharman and Perkins, 2017). Further research should explore the extent and persistence of such logics in different places and circumstances.

The logics of inaction cited by our research participants were largely, though not exclusively, influenced by an austerity rationality in which the answer to calls for investment in the natural environment has been overwhelmingly negative. This austerity rationality has influenced a wider public discourse on the future of parks and green spaces in which calls for innovation have been coupled with an assumption that a sustainable future for green spaces requires a shift of responsibility and funding from local government to a mix of alternative providers (Mell, 2017).

An austerity logic prioritises short-term cost savings ahead of long-term gains from investment, focusing attention on governance fixes and marketisation as potential solutions to funding crises. This raises a more fundamental question for urban policy: can green spaces and their more vulnerable users ever become the beneficiaries of approaches to local public services and public spaces that arise from a paradigm of small-state neoliberalism and 'austerity urbanism'? Our research suggests that new governance and funding arrangements designed to reduce the burden on the state will soon generate their own logics of inaction.

Biographical note: Dr Julian Dobson is a senior research fellow at the Centre for Regional Economic and Social Research at Sheffield Hallam University, and previously worked with the University of Sheffield's Department of Landscape Architecture on the IWUN project. He is currently involved in a range of projects on the social benefits and future prospects of urban green spaces.

Dr Nicola Dempsey is Senior Lecturer in the Department of Landscape Architecture at the University of Sheffield. Her research interests are focused on how relevant policies, strategies and political rhetoric are implemented in and experienced by urban green and open spaces users. This calls on her long-standing research into place-keeping, which is the long-term management of our green and open spaces. The concept of place-keeping involves exploring innovative approaches to designing and managing open space while securing its long-term future by getting the right people, funding and policies in place.

ORCiD:

Julian Dobson – https://orcid.org/0000-0002-6164-2707

Nicola Dempsey - https://orcid.org/0000-0001-6642-8673

References

Andrews M, Squire, C, and Tamboukou, M (Eds.) (2008). *Doing narrative research*. London: Sage.

Birch J, Rishbeth C, and Payne, S (2020) Nature doesn't judge you - how urban nature supports young people's mental health and wellbeing in a diverse UK city. *Health and Place* *https://doi.org/10.1016/j.healthplace.2020.102296*

Branas CC, Cheney RA, MacDonald JM, Tam VW, Jackson TD, and Ten Have TR (2011) A difference-in-differences analysis of health, safety, and greening vacant urban space. *American Journal of Epidemiology*. 174: 1296–1306.

Brindley P, Jorgensen A, and Maheswaran R (2018). Domestic gardens and self-reported health: a national population study. *International Journal of Health Geographics*, *17*(31), https://doi.org/10.1186/s12942-018-0148-6

Brindley P, Cameron RW, Ersoy E, Jorgensen A, and Maheswaran R. (2019). Is more always better? Exploring field survey and social media indicators of quality of urban greenspace, in relation to health, *Urban Forestry & Urban Greening*, *39*, 45-54, https://doi.org/10.1016/j.ufug.2019.01.015.

Buck D (2016) *Gardens and health: Implications for policy and practice*. London: Kings Fund.

Chawla L (2014) Children's engagement with the natural world as a ground for healing. In: Krasny ME and Tidball KG (eds.), *Greening in the red zone: Disaster, resilience and community greening*. Dordrecht: Springer, pp.111–124.

Crowe L (2018). Policy review – The future of public parks in England: policy tensions in funding, management and governance. *People, Place & Policy* 12(2): 58-71.

Dempsey N, Burton M and Duncan R (2015) Evaluating the effectiveness of a cross-sector partnership for green space management: The case of Southey Owlerton, Sheffield, UK. *Urban Forestry and Urban Greening* 15: 155-164.

Dempsey N, Burton M and Selin J (2016) Contracting out parks and roads maintenance in England. *International Journal of Public Sector Management* 29(5).

Design Council (2014) *Active By Design: designing places for healthy lives*. London: Design Council.

de Vries S et al (2003) Natural environments − healthy environments? An exploratory analysis of the relationship between greenspace and health. *Environment and Planning A* 35(10): 1717–1731.

Dobson J and Dempsey N (2018). Beyond 'green is good' – the policy and practice dilemmas of urban nature and human wellbeing. *Town & Country Planning*, *88*, December, 514-518.

Dobson J, Dempsey N, Ma J, and Henneberry J (2019). What counts in counting? Thorny questions in valuing green space interventions. *Town & Country Planning*, *89*, Mar/Apr, 116-121.

Dobson J, Birch J, Brindley P, Henneberry J, McEwan, K, Mears, M, ... & Jorgensen, A. (2020). The magic of the mundane: The vulnerable web of connections between urban nature and wellbeing. *Cities* 108, 102989.

Douglas O, Lennon M and Scott M (2017) Green space benefits for health and well-being: A life-course approach for urban planning, design and management. *Cities* 66(2017): 53-62.

Eisenhardt, KM (1989). Building theories from case study research. *Academy of Management Review*, 14(4): 532-550.

Fligstein N (1997) Social skill and institutional theory. *American Behavioral Scientist* 40(4): 397-405.

Friedland R and Alford RR (1991) Bringing society back in: Symbols, practices and institutional contradictions. In: WW Powell and PJ DiMaggio (eds.), *The new institutionalism in organizational analysis.* Chicago: University of Chicago Press, pp. 232-263.

Gandy M (2015) From urban ecology to ecological urbanism: An ambiguous trajectory. *Area,* 47(2): 150-154.

Gascon M, Zijlema W, Vert C, White M and Nieuwenhuijsen M (2017) Outdoor blue spaces, human health and well-being: A systematic review of quantitative studies, *International Journal of Hygiene and Environmental Health*, 220, 1207-1220. doi: 10.1016/j.ijheh.2017.08.004.

Haas PM (1992). Introduction: Epistemic communities and international policy coordination. *International Organization 46*(1): 1-35.

Hastings A et al (2017) Austerity urbanism in England: The "regressive redistribution" of local government services and the impact on the poor and marginalised. *Environment and Planning A* 49(9): 2007–2024.

Heritage Lottery Fund (2016). *State of UK Public Parks 2016*. Heritage Lottery Fund.

Hoyle H, Jorgensen A, Warren P, Dunnett N and Evans K (2017) "Not in their front yard" The opportunities and challenges of introducing perennial urban meadows: A local authority stakeholder perspective. *Urban Forestry & Urban Greening*. 25:139-149.Hunter RF, Christian H, Veitch J, Astell-Burt T, Hipp JA and Schipperijn J (2015) The impact of interventions to promote physical activity in urban green space: a systematic review and recommendations for future research. *Social Science & Medicine*. 124, 246–256.

Jasanoff S (2011) Cosmopolitan knowledge: Climate science and global civic epistemology. In: Dryzek JS, Norgaard RB and Schlosberg D (eds) *The Oxford Handbook of Climate Change and Society*. Oxford: Oxford University Press. Available at:

http://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199566600.001.0001/oxfordhb-9780199566600-e-9 (Accessed 11 November 2019).

Kenny C et al (2017) *The role of research in the UK Parliament.* London: Parliamentary Office of Science and Technology.

Lowndes V and Gardner A (2016) Local governance under the conservatives: Super-austerity, devolution and the 'smarter state'. *Local Government Studies, 42*(3): 357-375.

Lowndes V and Roberts M (2013) *Why institutions matter: The new institutionalism in political science.* Basingstoke: Palgrave Macmillan.

Matthews P, Rutherfoord R, Connelly S, Richardson L, Durose C, and Vanderhoven D (2017). Everyday stories of impact: interpreting knowledge exchange in the contemporary university. *Evidence and Policy: A Journal of Research, Debate and Practice*. Available at:

https://doi.org/10.1332/174426417X14982110094140 (Accessed 11 November 2019).

March JG and Olsen JP (1989). *Rediscovering institutions: The organizational basis of politics*. New York: The Free Press.

McEwan K, Richardson M, Sheffield D, Ferguson FJ, & Brindley P (2019) A smartphone app for improving mental health through connecting with urban nature. *International Journal of Environmental Research and Public Health*, 16(18), 3373-3373.

Mears M, Brindley P, Maheswaran R, Jorgensen A (2019a). Understanding the socioeconomic equity of publicly accessible greenspace distribution: The example of Sheffield, UK. *Geoforum*, *103*, 126–137. https://doi.org/10.1016/j.geoforum.2019.04.016.

Mears M, Brindley P, Jorgensen A, Ersoy E, and Maheswaran R (2019b) Green space spatial characteristics and human health in an urban environment: An epidemiological study using landscape metrics in Sheffield, UK. *Ecological Indicators*, *106* (2019), 105464, https://doi.org/10.1016/j.ecolind.2019.105464.

Mell I (2017) Financing the future of green infrastructure planning: alternatives and opportunities in the UK. *Landscape Research* 43(6): 1–18.

Miller D, Morrice J, Aspinall P, Brewer M, Brown K et al. (2008) *Contribution of green and open space to public health and wellbeing*: final report for greenhealth, Edinburgh: Scottish Government.

National Audit Office (2018). Financial sustainability of local authorities 2018. [online] https://www.nao.org.uk/report/financial-sustainability-of-local-authorities-2018/ (accessed 10 October 2019).

Natural England (2015). Monitor of Engagement with the Natural Environment: The National Survey on People and the Natural Environment Annual Report from the 2013-14 Survey. Worcester, Natural England. Retrieved from:

http://publications.naturalengland.org.uk/publication/6579788732956672?category=47018

North DC (1990) *Institutions, institutional change and economic performance.* Cambridge: Cambridge University Press.

Nursey-Bray MJ, et al (2014) Science into policy? Discourse, coastal management and knowledge. *Environmental Science and Policy* 38(C): 107-119

Park BJ, Tsunetsugu Y, Kasetani T, Kagawa T and Miyazaki Y (2010) The physiological effects of Shinrin-yoku (taking in the forest atmosphere or forest bathing): evidence from field experiments in 24 forests across Japan, *Environmental Health and Preventive Medicine* 15:18–26.

Pawson R and Tilley N (1997) *Realistic evaluation*. Thousand Oaks: SAGE.

Peck J (2012) Austerity urbanism. *City 16*(6), 626-655.

Powell WW and DiMaggio PJ (eds.) (1991) *The new institutionalism in organizational analysis*. Chicago: University of Chicago Press.

Pozzali A (2008). Tacit knowledge, implicit learning and scientific reasoning. *Mind & Society 7(2)*, 227-37.

Pritchard A, Richardson M, Sheffield D, & McEwan K (2019). The relationship between nature connectedness and eudaimonic wellbeing: a meta-analysis. *Journal of Happiness Studies*, 1-23.

Prescott SL, Millstein RA, Katzman MA and Logan AC (2016) Biodiversity, the Human Microbiome and Mental Health: Moving toward a New Clinical Ecology for the 21st Century? *International Journal of Biodiversity,* 2016, 2718275. http://dx.doi.org/10.1155/2016/2718275

Pretty J, Peacock J, Sellens M and Griffin M (2005) The mental and physical health outcomes of green exercise, *International Journal of Environmental Health Research*, 15:5, 319-337.

Richardson M and Sheffield D (2017). Three good things in nature: Noticing nearby nature brings sustained increases in connection with nature. *Psyecology*, *8*(1), 1-32.

Roe JM, Aspinall PA and Ward Thompson C (2017) Coping with Stress in Deprived Urban Neighborhoods: What Is the Role of Green Space According to Life Stage? *Frontiers in Psychology*, 8: 1760.

Shanahan D, Fuller R, Bush R, Lin B, and Gaston K. (2015). The health benefits of urban nature: How much do we need? *BioScience, 65*(5), 476-485.

Sharman A and Perkins R (2017) Post-decisional logics of inaction: The influence of knowledge controversy in climate policy decision-making. *Environment and Planning A* 49(10): 2281-2299.

Sheffield Waterways Strategy Group (2014). *City of Rivers: Sheffield Waterways Strategy*, Sheffield: SWSG.

Sugiyama T et al (2008) Associations of neighbourhood greenness with physical and mental health: do walking, social coherence and local social interaction explain the relationships? *Journal of Epidemiology and Community Health*, 62(5): e9.

Taylor MS et al (2015) Research note: Urban street tree density and antidepressant prescription rates —A cross-sectional study in London, UK. *Landscape and Urban Planning*, 136: 174–179.

Thornton PH, Ocasio W and Lounsbury M (2012). *The institutional logics perspective: A new approach to culture, structure, and process*. Oxford: Oxford University Press.

Turok I (1999) Urban labour markets: The causes and consequence of change. *Urban Studies*, 36(5–6), 893–915. https://doi.org/10.1080/0042098993268Vandermeulen V, Verspecht A, Vermeire B, Van Huylenbroeck G, and Gellynck X. (2011). The use of economic valuation to create public support for green infrastructure investments in urban areas. *Landscape and Urban Planning*, *103*(2), 198-206.

Ward Thompson C and Aspinall P (2011) Natural environments and their impact on activity, health, and quality of life. *Applied Psychology: Health and Well-Being* 3(3), 230-260.

White M, Alcock I, Wheeler B and Depledge M (2013). Would you be happier living in a greener urban area? A fixed-effects analysis of panel data. *Psychological Science*, 24(6) 920–928.

World Health Organization (WHO) (2017) *Urban Green Spaces and Health: a review of impacts and effectiveness*. Report, World Health Organization, Copenhagen. Available at:

http://www.euro.who.int/en/health-topics/environment-and-health/urban-health/publications/2017/urban-green-space-interventions-and-health-a-review-of-impacts-and-effectiveness.-full-report-2017 (Accessed 11 November 2019).

Yin RK (2009). *Case study research: Design and methods* (4th Ed.). Thousand Oaks, CA: Sage.

Zilber TB (2002) Institutionalization as an interplay between actions, meanings, and actors: the case of a rape crisis center in Israel. *Academy Of Management Journal* 45(1): 234-254.

Table 1: Research methods to select preferred greenspace interventions

Activity	Participants or other detail	Selection process	Rationale
1. Literature review	Analysis of 120+ journal articles and grey literature on urban greenspace and wellbeing	Scopus and Web of Science searches; grey literature search	Review existing evidence to identify interventions considered beneficial to mental wellbeing
2. Stakeholder event	30 participants from public health, greenspace practice and other sectors contacted through IWUN project	IWUN mailing list with additional invitations to individuals with specialist local knowledge	Consider long list of interventions and identify priorities
3. Shortlisting of preferred interventions	92 individuals from 8 stakeholder groups voted (at events or online) on priorities from longlist of interventions	Participants contacted through professional or community organisations on the basis of specialist knowledge (e.g. planners, public health officials)	Supplement academic research (the literature review) with practice-based knowledge in order to shortlist practical interventions
4. Detailed group discussions of shortlisted interventions	28 individuals in 6 focus groups considered benefits of proposed interventions and rationales for investment	Groups selected for specialist knowledge: parks staff, planners, public health officials, community organisations, volunteers, and medical practitioners	Gain detailed qualitative understanding of the perceived local benefits of shortlisted interventions, and the decision-making processes that would determine implementation
5. Additional one-to-one interviews	Semi-structured interviews with 2 primary care doctors; 2 therapists; a health academic; and a housing developer	Individuals selected to fill gaps identified in focus group discussions, or because group discussions could not be arranged	Gain further detailed understanding of the benefits and decision-making processes relating to proposed interventions
6. Analysis of material	Manual coding of interview data in discussion with members of project team	Material coded to identify benefits attached to particular interventions and decision-making pathways and processes	Understand how interventions might be implemented and inform policy recommendations; and to inform cost-benefit analysis of shortlisted interventions

Table 2. The shortlisted interventions

The green space interventions considered to have the greatest potential mental health benefits for Sheffield's residents (in no particular order).
1. Improved access to green spaces, including walking and cycling routes
2. New or upgraded toilets and cafés in parks and woodlands
3. Set and maintain a minimum standard of regular, sustained maintenance
4. Employ parks staff to encourage outdoor activities and volunteering
5. Support voluntary and community organisations to animate green spaces

Table 3: (Not) investing in greenspace for wellbeing: Logics of inaction cited by interviewees

Type of logic	Logics of inaction
Wellbeing logics	The value of 'nature' is subjective
	Action is not supported by medical establishment or evidenced in journals such as The Lancet; randomised controlled trials have not been undertaken
	Healthcare practice devalues non-medical knowledge
	Green spaces can be difficult and dangerous with adverse wellbeing effects (presence of drug litter; antisocial behaviour)
	Wellbeing needs are complex and cannot be addressed by generic interventions
Financial logics	Interventions demand upfront funding but benefits are long term
	Evidence of costs and benefits is inadequate and not context-specific
	Financial savings take the form of costs avoided rather than additional income
	Commercialisation opportunities are limited
	Funding cannot be sustained for the long term
	Available funds must be directed to 'firefighting' or crisis management
	Property development is a more efficient way to increase land values; unwanted green spaces can make new housing developments 'unviable'
Civic and community logics	Access to green spaces is poor and too expensive to provide
	Green space is associated with risks – crime, safeguarding of vulnerable people, litter and drug detritus, antisocial behaviour
	Political support is lacking compared with other issues
	There is no legal duty to provide green spaces – legal obligations take priority
	There are more pressing problems associated with poverty and deprivation
	Economic development comes first and economic benefits of green spaces are limited
Organisational logics	'Organisational firewalls' between departments and organisations
	Ineffective signposting between different services
	Competition and duplication between organisations
	Bureaucracy associated with new facilities including obtaining licences, planning permission
	Gains or savings do not align with budget-holders
	Services are under-resourced and staff time is limited
	Perceived high cost of greenspace management and ongoing maintenance of new facilities
Environmental logics	Biodiversity is not valued
Wider social logics	Lack of diversity - greenspace groups are dominated by retired white people
	Hierarchies of expertise - community knowledge is not valued
	Growth of private rented housing market increases short-term residency, reducing place attachment and residents' propensity to become involved in community groups