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Britannia Mills, Castlefield, Manchester was the first project by Urban Splash in the area just outside Manchester city centre. The former warehouse buildings were transformed into 123 apartments and were completed in 2001. Since Britannia Mills, Urban Splash has gone on to complete a further four projects in Castlefield: Timber Wharf, Box Works, Burton Place and Moho with Albert Mill, one of the last remaining Victorian mills in Manchester, currently being turned into shell apartments.

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City Road Basin Model — project name: CITY ROAD BASIN MASTERPLAN —WINNER — BURA and The Watermans Trust's Waterways Renaissance Awards 2006

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An evening view of the Clydeside waterfront of Glasgow's two-award-winning International Financial Services District (IFSD). Since the IFSD was launched in 2001, a total of £600 million of investment has been committed to totally transform the area, which covers one square kilometre of Glasgow's west city centre area, bordering on the River Clyde at the Broomielaw. This public and private sector partnership has regenerated an obsolete and run-down commercial and dockside inner-city area. The IFSD has created a 21st century financial hub, generating more than 4500 jobs and top quality office space which has attracted top firms to Glasgow including JP Morgan, esure and Barclays Stockbrokers.

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Editorial

Improving urban regeneration and renewal outcomes by engaging an *urban* psychology

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Abstract A crisis in mental health, especially in economically deprived neighbourhoods, can present a significant barrier to successful urban regeneration projects. It follows that urban regeneration not only has a stake in promoting mental health care generally but, through its place making influence on physical and social structures, has a more direct responsibility to address poor mental health and sustain well-being where it exists. In support of a psychologically informed urban regeneration, this *Special Issue* sets out the case for a systematised intellectual and practice-based discipline and movement: an *urban* psychology, with an explicit therapeutic mission. It incorporates 10 articles delivered initially at Europe's first urban psychology summit — City, Psychology, Place — held at the University of Liverpool in London campus in June 2019. In this editorial introduction, we reflect upon the need for an urban psychology at this historical juncture and offer our views on the work which such a body of practical knowledge might do to improve regeneration and renewal outcomes. We conclude that there can be no enduring economic, social or physical regeneration of distressed, failing or failed communities unless there is first 'regeneration in support of life itself' (RISLI).

Keywords: *cities, psychologies, urban psychology, urban regeneration, mental health, sustaining communities, resourcefulness policy*

INTRODUCTION

‘Plurality is the condition of human action because we are all the same, that is, human, in such a way that nobody is ever the same as anyone else who lived, lives, or will live.’¹

The efficacy of past and present approaches to urban regeneration continues to cause concern; notwithstanding their other laudable accomplishments, too many regeneration interventions, it seems, have toiled (if not failed) to turn around economically deprived communities and pave the way for their sustainable and enduring recovery and prosperity. What remains lacking in mainstream policy and practice, we believe, is a deep-rooted grasp and appreciation of the significance of human well-being as an essential primordial condition for successful regeneration. This is attributable in part to resource constraints, but it also reflects conceptual limitations which inhere within existing approaches. A growing crisis in mental health, especially in so-called ‘rustbelt’ cities, towns and ‘left behind’ places and their poor and residualised neighbourhoods, often presents as a significant impediment to the flourishing of sustainable and resilient communities. It is unlikely that communities will respond effectively to regeneration interventions when everyday stressors are overwhelming and maintaining even rudimentary mental health is exhausting.

It follows that urban regeneration has a stake in promoting preventative and restorative mental health care and indeed, through its place-making capabilities and its potential to produce pro-social places, has a role to play itself in the remediation of poor mental health and the maintenance of well-being where

it already exists. Conversely, of course, if done badly, urban renewal can inflict further harm on the very communities it is seeking to help. In support of a ‘psychological turn’ in urban regeneration policy (and we hope in consequence an ‘urban regeneration’ turn in mental health care policy), this *Special Issue* sets out the case for a systematised intellectual and practice-based discipline and movement: an *urban* psychology, with an explicit therapeutic mission. There follows 10 articles, written versions of papers presented initially at Europe’s first urban psychology summit — ‘City, Psychology, Place’ — held at the University of Liverpool in London campus in June 2019² and attended by psychologists, psychiatrists, planners, geographers, architects, economists and urbanists from the UK, US and Europe.

In this editorial introduction, we elaborate upon why we think an urban psychology is needed at this historical juncture and the work we think such a branch of practical knowledge might usefully do. We advance the proposition that there can be no enduring economic, social and physical regeneration nor stronger and self-sustaining communities unless there is first — to develop a phrase coined by Kearns and Reid-Henry³ — ‘regeneration in support of life itself’ (RISLI).

WHY URBAN PSYCHOLOGY, WHY NOW?

There has emerged a widely held belief that against the backdrop of 30 years of welfare Keynesianism (1945–75), 40 years of neoliberalism (1979–) and a decade of austerity (2007–), it is time to think urban regeneration afresh.⁴ Notwithstanding

the many beneficial legacies they have left in their wake, neither traditional bureaucratic state nor neoliberal market models of urban renewal have proven particularly effective in addressing the complex needs of communities debilitated by low aspiration, poverty, unemployment, family breakdown, poor housing, ill health and low educational attainment. More recently, with its epicentre in the UK, a 'third way' approach has sought to remediate failings in past approaches by working to build social capital, active citizens and sustainable communities. While third way urban regeneration has witnessed substantial investment in poor and broken communities and in building people's skills and capabilities, it too has encountered significant obstacles and at times has manifested as a thinly veiled moral crusade targeted at responsabilising what are judged to be indolent communities.

Intended to provide a safety net of social protection in times of need, arguably the post-1945 welfare state mutated into a 'nanny' state, creating for too many a long-term dependency on state welfare and a proclivity towards disengaging with the labour market. Urban regeneration in the age of welfare Keynesianism prioritised 'bricks and mortar' renewal, clearing urban slums and building social housing estates, high-rise blocks and new towns. What were intended to be (by the standards of the time) futuristic and utopian landscapes too often degenerated to become inhumane, soulless, monotonous, concrete grey and dystopian landscapes, beset by concentrated poverty and social malaise.⁵ In his study of Cabrini Green in Near North Side, Chicago, Richard Sennett⁶ famously characterised the North American 'projects' as instruments of 'compassionate wounding' and vividly documented local residents' struggles to humanise their own living environments creatively.

Concomitant with the rise of fiscal monetarism, supply side economics and deregulation, from the late 1970s urban regeneration increasingly centred upon market-led competition, urban entrepreneurialism, place marketing, civic boosterism and property-led development. Informed by neoclassical economics, the supposition was that liberated markets would lead to wealth creation and this wealth would benefit all through 'trickle down'.⁷ But neoliberal urban regeneration has bequeathed principally boom and bust economics, weak economic resilience, pernicious uneven development, haphazard *laissez-faire* development and sharpening social inequalities. While property investors have given many city centres and downtowns a welcome make-over, other poorer neighbourhoods have been unaffected and have continued to decline. A rising tide, it transpires, does not lift all boats and for poor communities and those who struggle to compete in the marketplace, marginalisation and alienation have clearly deepened. According to Dijkstra, Poelman and Rodríguez-Pose,⁸ there has emerged intense regional inequalities,⁹ a new 'geography of discontent' and a rise in political populism in neglected places (or places that feel neglected), which some take to signal a revolt or revenge of a 'left behind' rustbelt.¹⁰

The 1990s and 2000s witnessed the rise of a 'third way' approach to urban regeneration, which sought to chart a novel course between the old political landscape of left and right by rethinking the role of public institutions in market economies. The third way rejected the capacity of neoliberal economics to deliver inclusive economic growth, but it also rejected state interventions which infantilised communities. The solution was for the state to intervene only to the extent that communities might be rehabilitated so that they could

reproduce themselves autonomously and sustainably within the market economy. Although not geographically confined, third way urban regeneration first emerged as part of the rise of New Labour in the UK. Funding programmes such as the New Deal for Communities Pathfinders represented a major shift in power and responsibility down to the neighbourhood level and showcased new ways of ‘turning neighbourhoods around’, covering everything from jobs and crime to health and housing. Social capital, taken loosely to refer to the vibrancy, intensity and inclusivity of local social networks, was to be nurtured through good urban design, social mixing, skills training and community empowerment.

While salutary in aspiration, arguably third way urban regeneration too has laboured in practice to turn around failing communities and neighbourhoods hampered by complex problems. Indeed, at times, it has manifest as a disciplinary force on local communities, making use of a convoluted apparatus of rewards and penalties to impose moral assumptions about which forms of community are ‘good’ and ‘bad’/‘right’ and ‘wrong’/‘just’ and ‘unjust’/‘worthy’ and ‘unworthy’.¹¹

Why have urban regeneration and renewal programmes found it so difficult to arrest the decline of poor neighbourhoods and to (re)build, in economically deprived places, sustainable and resilient communities? There is no simple or single answer to this question; here we ruminate on but one impediment we feel to be especially crucial.

In their classic study of industrial and factory workers in Boston, Richard Sennett and Jonathan Cobb¹² make a telling observation when they note that motivation in capitalist society is often rooted in the desire to heal scars inflicted by a number of ‘hidden injuries of class’. According to Sennett and Cobb,

‘The fear of being summoned before some hidden bar of judgement and being found to be inadequate infects the lives of people who are coping perfectly well from day to day; it is a matter of a hidden weight, a hidden anxiety, in the quality of experience, a matter of feeling inadequately in control ... The psychological motivation instilled by a class society is to heal a doubt about the self rather than create more power over things and other persons in the outer world.’

While only one of a number of critical inhibitors, it is our belief that a key stumbling block is the lack of a deep-rooted grasp and appreciation in policy, planning and practice of the corrosive impacts of poverty, precarity, isolation, inequality and stigmatisation on the psychological make-up of residents dwelling in blighted communities and the scale of supports needed to remediate poverty’s war of attrition on human well-being and flourishing.

Matters have deteriorated since 1972. For Beck *et al.*,¹³ this is the age of the ‘risk society’. The vicissitudes of late capitalism, the many existential precarities wrought by the Anthropocene, and the elevated stressors which pervade everyday life are exerting a historically unprecedented toll on mental well-being. As wealth and income inequalities have grown,¹⁴ so too has impaired mental well-being.^{15,16} ‘Mental disorders’ now rank fifth in the Global Burden of Disease (GBD) and constitute the second leading cause of Years of Life lost to Disability (YLD).¹⁷ Globally there has been an exponential rise in anti-depressant and anti-anxiety prescriptions. Moreover, there is a distinctive urban dimension to the mental health crisis.¹⁸ While not exclusively so, the social determinants of poor mental health are today coalescing in especially intense ways in metropolitan centres, placing unique strains on the psychological vitality of urban citizens and in particular

the well-being of communities dwelling in disempowered, disadvantaged, ‘left-behind’ ‘rustbelt’ cities and towns and especially in their deprived — or cruelly labelled ‘sink’ — social housing estates.^{19,20} At least for the poor, the contemporary urban condition is marked by an elevated sense of risk, vulnerability and precarity and heightened levels of panic, stress, anxiety, depression, nervous exhaustion, burnout and suicidality.²¹

It is our contention that deteriorating mental health in our cities exists as a central impediment to successful urban renewal; one cannot build sustainable and resilient communities, catalyse active citizens, or activate labour until one has first created a bedrock of healthy and well-functioning human beings. To improve urban regeneration and renewal outcomes, it will be necessary to remediate the present crisis in mental health — and to remediate the crisis in mental health, it will be necessary to fortify the psychological literacy of planners, policy makers and practitioners, all in the context, of course, of a much wider package of service reform.

CHANGING OURSELVES BY CHANGING OUR CITIES: CHANGING OUR CITIES BY CHANGING OURSELVES

In calling for a psychologically informed urban regeneration and renewal, we are mindful that there exists a long tradition of scholarship exploring the relationship between cities and the psychologies of their inhabitants.²² Many of the intellectual resources to emerge from this scholarship remain vital and deserve to be retrieved, dusted down, reappraised and given new life for these times. Still, it is our belief that at this historical juncture there is a need for a further and more coherent and sustained dialogue, supported by a formal tradition of *urban* psychology.²³

What exactly might such a psychology look like? Psychology is a broad discipline containing a number of subdisciplinary branches. In taxonomies, a distinction is often made between ‘pure’ and ‘applied’ psychology. Pure psychology variously incorporates cognitive, developmental, evolutionary, para, social, abnormal, experimental, neuro, cross-cultural and environmental psychology, while applied psychology normally includes in its domain clinical, forensic, health, educational, occupational, military and consumer psychology. It is possible to imagine an *urban* psychology developing simply from the application of existing subdisciplinary branches to urban populations. Existing analytic frames could simply be extended to the ‘urban’ as a particular experimental site. When done well, work of this ilk can be stunningly insightful. In *The Image of the City*, for example, Kevin Lynch²⁴ deploys analytical cognitive and perceptual psychology to understand human navigation through different cities and popularised the idea of the ‘mental map’.

But for us, the idea of an *urban* psychology might demand more thought. We follow with interest the work of Rom Harré, Margaret Wetherell, Jonathan Potter and Ian Parker, all of whom conceive of institutional psychology as in part a politico-intellectual discursive project itself that requires historicising, relativising and provincialising.²⁵ Psychology presents itself as a mode of ‘analytical reason’ — positivist and independent of any particular rational system. But what if we construe Psychology as a mode of dialectical reason, historically embedded, relative to a socially constructed system of logic and always put to work in particular fields of political and economic power? Lacking in self-understanding, analytical reason could simply be a primitive form of dialectical reason and as such could

be blind to its politics. All intellectual endeavour, including the practice of creating, disseminating and ingesting psychological knowledge, is best thought of as a situated social practice inextricably embroiled in the wider social, economic, political and intellectual dramas of the day. An *urban* psychology will emerge, but only from present urban conditions; it will be a psychology of the city rather than a psychology in the city, emergent from rather than independent of the current mental health crisis, and always inescapably enmeshed in the politics of the city.

Understood thus, it is imperative that any and all new *urban* psychological approaches attend to the social production of poor mental health and, as such, put psychological theories, concepts and practices to work with social and political questions centrally to the fore.

Psychology is often defined as the scientific study of the human mind and its functions. Accordingly, psychotherapies targeted at remediating undesirable psychological states have often centred on building personal resilience — including through cognitive behavioural therapy, mindfulness, meditation, talking therapies, exercise, diet, abstinence, sleep and medication. We believe each of these therapies has a crucial role to play in helping people cope with impaired mental health. But cloaked in a scientific aura, institutional psychology risks legitimating the idea that therapies must be targeted at abnormalities which exist ‘under the skull’ of the sovereign Cartesian subject and thereby licensing a de-politicisation of mental illness. In fact, personalised therapies can only do so much in any given politico-institutional environment.

We can edge closer to a bundle of more fundamental solutions if we construe the present crisis in mental health as socially and politically *produced*; our age of anxiety manifests, to borrow a phrase

from Raymond Williams,²⁶ as an *historical* ‘structure of feeling’. What does this feeling *feel* like? For Richard Sennett, the personal consequences of work in the new capitalism combine to corrode people’s characters by denying them a sense of sustained purpose, integrity of self and trust in others.²⁷ Widespread anomie and disorientation has been the result. In tackling the crisis in mental health, then, it will be necessary to ‘fix’ economies, societies and cities as much as suffering individuals.²⁸

But even these solutions will be limited by the politico-institutional field in which they have to work. Therapeutic cities inevitably bear the stamp of the times and places in which they are imagined and built. ‘Social’ and ‘urban’ fixes to the present crisis in mental health will not be curative until they are properly political, doing more than compensating for the status quo. The difficulty here is that for a protracted period now, our times have been defined by neoliberal doctrines. Neoliberal cities lead to precarious and low-paid work, corrosive inequality, overheated housing markets, transport congestion, air pollution and social exclusion. These cities, we believe, are anatomically compromised in their capacities to serve as effective incubators of human flourishing.²⁹ They cannot, by design or definition, serve as life-affirming spaces. We will make insufficient progress if we simply medicate ourselves with neoliberal prescriptions.³⁰

If an urban psychology is to contribute to the building of well-being and wellness in economically deprived neighbourhoods, urban regeneration practitioners and place-makers may need to be willing to challenge political and economic orthodoxy and move beyond business as usual.³¹ In *City and Soul*, US Jungian psychoanalyst and urbanist James Hillman³² famously declared: ‘to change yourself, change your city’. Only by

changing the organising principles around which our cities work will it be possible to create pro-social spaces and ecologies of care which are structurally therapeutic and life-affirming.^{33–35} By our cities we shall be known.

HOPE NOW: FOR URBAN REGENERATION AND RENEWAL IN SUPPORT OF LIFE ITSELF

To generate and *sustain* sustainable communities it will be necessary for practitioners to attend to the distribution of power, to work to empower those who currently lack a voice, and to improve the standing of communities (their capacity to act autonomously and to practise self-determination) in the face of the forces that most impact their lives.

An *urban* psychology has much to gain by engaging (critically) the rich tradition of humanistic and existential (Western) Marxism which has yielded profound insights into the ever-growing occupation, dispossession and reterritorialisation of everyday life by the abstract grids and geometries imprinted on the earth's surface by capitalism and the capitalist state.³⁶ According to Derek Gregory, since the advent of capitalism, there has arisen: a) a pervasive commodification of space (privatisation of parcels of land through the imposition of private property relations) and an associated commodification through space, which involves the etching onto space of capitalist circuits of production, circulation and consumption and; b) an intensified bureaucratisation of space, whereby the capitalist state stakes out its territorial claims to sovereignty, and its parallel, bureaucratisation through space, in which the state inscribes its functions onto space in the form of highly regulated public infrastructure and administrative systems. For Henri Lefebvre, a response was needed to strip abstract space of

its fetishisms and reifications and, by redistributing 'rights to the city', to restore control over the production of space to those who immediately inhabit it. He judged the concept of 'alienation' to have 'enjoyed a brilliant career as a truly enlightening notion' and aspired to recreate spaces that truly reflect 'the full inventory of what the body has to give'. Using the method of spatial architectonics, he sought to peel back the successive strata of capitalist spatiality to recover, once more, human beings' primal and biomorphic relationships with space.³⁷

If urban regeneration is to be truly transformative, there will need to be a shift in perspective, from strengthening *resilience* to fortifying *resourcefulness*.³⁸ Resilience policy promotes conservative outcomes; urban regeneration works simply to help vulnerable communities improve their capacities to return to their mainstream as quickly as possible after a shock and wittingly and unwittingly works to preserve the status quo. If the prevailing social and economic system knocks people down, it is the job of resilience policy to build them back up so that they can better survive within that system. Resourcefulness policy, in contrast, helps citizens exercise greater agency, in part to prosper better within the existing political order, but equally — where relevant — to challenge this order and strengthen their structural position. Clearly shielding vulnerable populations by improving their resilience is a worthy endeavour, but not if it merely serves to preserve the social, economic, cultural and political processes that produce precarity in the first instance. Strengthening the capacity of communities so that people are better able to address the root causes of precarity provides a better option.

To enable this, inescapably there will be need to be a major reversal of debilitating austerity cuts and a quantum increase in resources to scale 'standard' regeneration

interventions, create jobs, improve skills training, build infrastructure, redevelop brownfield sites, clean technology and so on. It remains to be seen if the 'levelling up' and 'balanced regional growth' agendas at work in many advanced capitalist countries today will bring the required results. There will be no cheap solution to the present urban mental health crisis.

But equally, money alone will not remedy this crisis. Resources will also need to be invested wisely. There will need to be unprecedented public service reform, including reform to urban regeneration and renewal services. It is here that an urban psychology will find its *raison d'être*; precipitating change, instructing change, and evidencing the impacts of change. Per an *urban* psychology, at least eight fundamental shifts in approach would appear to be merited:^{39–41}

- *From biomedical to biopsychosocial therapies:* While recognising the importance of pharmacological medications and personal psychotherapies, an urban psychology will seek to remediate the crisis in mental health by supporting reforms to societies and cities and expanding localised ecologies of care;
- *From expert designed to co-created place making:* An urban psychology will tap into the formidable indigenous intellectual resources which already exist in communities, find a method to render this wisdom intelligible, respect people's analysis of where they are at and why, dignify their concerns and ideas, entertain the solutions they propose and champion policies which are authentically co-created, co-governed and co-implemented by planners, investors, policy makers and practitioners and the communities they serve;
- *From fixing deficits to building capabilities:* Instead of confronting problems and

focusing upon what is absent, an urban psychology will begin by mapping comprehensively the skills and assets which communities already have and will work to build upon areas of strength and vitality;

- *From means testing to open to all:* An urban psychology will concentrate on communities that are most in need, but It will also champion universal, anticipatory and preventative regeneration interventions to support lifelong and sustainable good mental health;
- *From centralised institutions to a user-centred perspective:* An urban psychology will recognise that discrete, surgical or siloed services fail to adequately address problems that stem from people's complex needs and promote a person-centred or user-centred model of service provision;
- *From transactional to relational models of delivery:* An urban psychology will deliver therapeutic interventions by building intimate relationship-rich bonds of mutuality, reciprocity and even solidarity within and between service providers and beneficiaries in preference to professionalised provision from a distance for and to means-tested 'clients';
- *From GDP metrics to prosperity metrics:* An urban psychology will work to produce sophisticated and bespoke measures of well-being which will include softer psychological measures of human benefit and relief as well as standard econometrics;
- *From policy officers to frontline advocates:* An urban psychology will speak to the need for a new generation of practitioners: scaling back top-down management and scaling up frontline workers and adding to formal qualifications and technical competencies, a requirement for all staff to display greater emotional

intelligence and a capacity to work radically autonomously and to enter into effective relationships with hard-to-reach communities.

CONCLUSION

We are excited by the potential presented by an *urban* psychology and the contribution such a branch of practical knowledge might make to improving urban regeneration and renewal outcomes. But equally we recognise the need to elaborate its intellectual foundations, better understand its capacity to be applied, and figure ways of testing and refining the efficacy of the regeneration approaches and programmes which it sponsors. Accordingly, this *Special Issue* features an eclectic mix of 10 papers, carefully commissioned to illustrate the spectrum of urban psychological theories, concepts, substantive studies and methodologies which might usefully contribute to the improvement of urban regeneration and renewal outcomes.

You will find in this collection reference to regeneration for various life-affirming outcomes; authors convene ideas as wide and varied as ‘eudaimonia’, ‘*felicitas publica*’ (public happiness), ‘human natality’, ‘fecundity’, ‘*activa vitae*’ (active life), ‘human flourishing’, ‘well-being’, ‘wellness’, ‘mental (w)health’, ‘capability building’ and ‘functioning humans’. Notwithstanding the need to attend to nuance, all of these labels gesture to a central thesis: regeneration that first celebrates and nurtures life itself is more likely to nourish and deepen in communities a shared interest in delivering economic and social regeneration. Communities need to be populated with people who live dignified and meaningful lives before they can be populated with consumers, active citizens and market actors. In urban regeneration and renewal scholarship and practice,

the contemporary preoccupation with analytics of government might usefully be supplemented with a parallel interest in analytics of care. And it is here that urban psychology has a pivotal contribution to make to identify, protect, scale and deepen the ways in which urban regeneration might best nurture and thicken local circuits and ecologies of care.

Chris Murray and Charles Landry open the collection with a plea for a new psychology-informed tradition of urban regeneration (what they call regeneration 3.0). Mindy Fullilove and Loretta Lees and Philip Hubbard then demonstrate the ways in which gentrification processes can imperil the mental well-being of displaced residents, causing ‘root shock’. Next, Rhiannon Corcoran provides a review of literature charting good and bad practice in pro-social place-making. There follows four articles examining a range of psychological frameworks/constructs that might usefully be brought into conversation with urban regeneration and renewal to enhance its efficacy. Sarah Niblock examines the potential utility of psychotherapy, Araceli Camargo and colleagues focus upon the growing significance of neuroscience, Ron Martin and colleagues deploy in imaginative ways theories of personality types and Helena Marujo, Luís Miguel Neto and Mafalda Casais recover the concept of *felicitas publica* (public happiness). Finally, Julia Thrift and James McGowan and Robert Qi draw attention to what needs to change in planning and practice if place-making is to better attend to psychological well-being.

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References and Notes

1. Arendt, H. (1958), *The Human Condition*, University of Chicago Press, Chicago.
2. Readers Interested in the work of other experts who presented at the summit will find further resources on supporting web sites, available at <https://www.liverpool.ac.uk/heseltineinstitute/events/citypsychologyplaceanurbanpsychologysummit/> and <https://www.urbanpsyche.org/2019/08/09/summit/> and <https://apps.who.int/iris/bitstream/handle/10665/254610/WHO-MSD-MER-2017.2-eng.pdf> (all accessed 11th February, 2020).
3. Kearns, G. and Reid-Henry, S. (July 2009), 'Vital geographies: Life, luck, and the human condition', *Annals of the Association of American Geographers*, Vol. 99, No. 3, pp. 554–574.
4. Tallon, A. (2013), *Urban Regeneration in the UK*, Routledge, London.
5. Boyle, M. (March 2005), 'Sartre's circular dialectic and the empires of abstract space: A history of space and place in Ballymun, Dublin', *Annals of the Association of American Geographers*, Vol. 95, No. 1, pp. 181–201; Boyle, M. and Rogerson, R. (May 2006), "'Third Way" Urban Policy and the New Moral Politics of Community: Conflicts Over the Virtuous Community in Ballymun in Dublin and the Gorbals in Glasgow', *Urban Geography*, Vol. 27, No. 3, pp. 201–227.
6. Sennett, R. (2003), *Respect: The Formation of Character in a World of Inequality*, Penguin Allen Lane, London.
7. Boyle, M. and Hughes, G. (November 1994), 'The politics of urban entrepreneurialism in Glasgow', *Geoforum*, Vol. 25, No. 4, pp. 453–470; Boyle, M. (1997), 'Civic boosterism in the politics of local economic development – "institutional positions" and "strategic orientations" in the consumption of hallmark events', *Environment and Planning A*, Vol. 29, pp. 1975–1997.
8. Dijkstra, L., Poelman, H. and Rodríguez-Pose, A. (September 2019), 'The geography of EU discontent', *Regional Studies*, pp. 1–7.
9. McCann, P. (2016), *The UK Regional–National Economic Problem: Geography, Globalisation and Governance*, Routledge, London.
10. McQuarrie, M. (November 2017), 'The revolt of the Rust Belt: Place and politics in the age of anger', *The British Journal of Sociology*, Vol. 68, S120–152.
11. *Ibid.*, note 5, Boyle and Rogerson (2006).
12. Sennett, R. and Cobb, J. (1972), *The Hidden Injuries of Class*, W. W. Norton, New York, p. 171; Sennett, R. (1998), *The Corrosion of Character: The Personal Consequences of Work in the New Capitalism*, W. W. Norton, New York.
13. Beck, U., Lash, S. and Wynne, B. (1992), *Risk Society: Towards a New Modernity*, Sage, London.
14. World Inequality Database, see <https://wid.world/> (accessed 11th February, 2020).
15. Pickett, K. and Wilkinson, R. (2010), *The Spirit Level: Why Equality is Better for Everyone*, Penguin, London.
16. The Equality Trust, 'The Sprit Level', available at <https://www.equalitytrust.org.uk/resources/the-spirit-level> (accessed 11th February, 2020).
17. The Lancet, see <https://www.thelancet.com/lancet/visualisations/gbd-compare> (accessed 11th February, 2020).
18. Herrman, H., Kieling, C., McGorry, P., Horton, R., Sargent, J. and Patel, V. (June 2019), 'Reducing the global burden of depression: A Lancet–World Psychiatric Association Commission', *The Lancet*, Vol. 393, No. 10189, e42–3.
19. Dorling, D. (2013), *Unequal Health: The Scandal of Our Times*, Policy Press, Bristol.
20. Okkels, N., Kristiansen, C. B., Munk-Jørgensen, P. and Sartorius, N. (May 2018), 'Urban mental health: Challenges and perspectives', *Current Opinion in Psychiatry*, Vol. 31, No. 3, pp. 258–264.
21. Philo, C., Parr, H. and Söderström, O. (2019), "'On edge?": Studies in precarious urbanisms', *Geoforum*.
22. Charles Baudelaire's poetic lament on the Haussmannisation of Paris in the 1840s perhaps represents a good place to start. Baudelaire was to influence Walter Benjamin who in his famous Arcades Project sought to characterise human encounters with the modern city in terms of an interplay between *Erlebnis* (overwhelming sensory bombardment) and *Erfahrung* (liberating

- wanderings of the flâneur). A version of this dichotomy was also to feature in Louise Wirth's classic essay 'Urbanism as a Way of Life', which argued that cities are at once harbingers of alienation, anomie, isolation and loneliness and citadels of liberalism, tolerance, freedom and creative expression (*American Journal of Sociology* [1938]). For Ferdinand Tönnies, the psychological implications of the shift from traditional forms of community (*Gemeinschaft*) to modern forms of social life (*Gesellschaft*) were felt most keenly in the cities. The impact of the metropolis on the mind of the individual was a source of sustained fascination for Georg Simmel and subsequently, the Chicago School of Urban Sociology. Reacting to the grime of the industrial city, for Ebenezer Howard there was a need for a Garden City Movement for improved urban (mental) health. A spatial thinker in the French existential Marxist tradition, as intimated above Henry Lefebvre fastened on the city as a progenitor of 'alienation' (*The Production of Space* [1991], Blackwell, Oxford, p. 343) and sought to reclaim space for human expression (*ibid.*, p. 197). For Situationist International Guy Debord, the city and its spectacles were centrally implicated in the degradation of the quality of human life. An evangelist of the nobility of human 'natality', Hannah Arendt considered that any search for '*vita activa*' (active life, comprising each of labour, work, action) was destined to meet its fate in the cities. In *The Image of the City*, Kevin Lynch ([1960], MIT Press, Cambridge, MA) sought to use analytical cognitive and perceptual psychology to understand human navigation through different cities and popularised the idea of the 'mental map'. Around the same time, Jane Jacobs took to task urban renewal programmes in North American cities which failed to respect the needs of city dwellers and called for grassroots resistance to large-scale slum clearance. In her depiction of the impact of regeneration on inner-city communities as 'root shock', Mindy Fullilove has played a seminal role in improving the urban policy literacy of certified psychiatrists. In his juxtaposition of 'space' and 'place', Yi Fu Tuan has drawn attention to the central importance of phenomenological encounters with place and the significance of personal maps of meaning in human well-being. And inspired by an affective and emotional turn in the social sciences, Wilbert M. Gesler has pioneered the concepts of 'therapeutic landscapes' and 'healing places'.
23. Landry, C. and Murray, C. (2017), *Psychology & the City: The Hidden Dimension*, Comedia, London.
 24. Lynch, K. (1960), *The Image of the City*, MIT Press, Cambridge, MA.
 25. Parker, I. (1992), '*Discourse Dynamics (Psychology Revivals): Critical Analysis for Social and Individual Psychology*', Routledge, London.
 26. Williams, R. (1975), *The Country and the City*, Oxford University Press, New York.
 27. Sennett, R. (1998), *The Corrosion of Character: The Personal Consequences of Work in the new Capitalism*, W. W. Norton, New York.
 28. Bondi, L. (2005), 'Making connections and thinking through emotions: Between geography and psychotherapy', *Transactions of the Institute of British Geographers*, Vol. 30, No. 4, pp. 433–448.
 29. Gleeson, B. (2014), *The Urban Condition*, Routledge, London.
 30. Parr, H. (2011), *Mental Health and Social Space: Towards Inclusionary Geographies?*, John Wiley & Sons, Hoboken, NJ.
 31. Fullilove, M. T. (2016), *Root Shock: How Tearing Up City Neighborhoods Hurts America, and What We Can Do About It*, New Village Press, New York.
 32. Hillman, J. (2006), *City and Soul: Uniform Edition*, Spring Publications, Washington, DC.
 33. Gehl, J. (2013), *Cities for People*, Island Press, Washington, DC.
 34. Bondi, L. (2016), *Emotional Geographies*, Routledge, London and New York.
 35. The Centre for Urban Design and Mental Health, see <https://www.urbandesignmentalhealth.com/> (accessed 11th February, 2020); Project for Public Spaces, see <https://www.pps.org/> (accessed 11th February, 2020).
 36. Gregory, D. (1994), *Geographical Imaginations*, Blackwell, Oxford.
 37. Lefebvre, H. and Nicholson-Smith, D. (1991), *The Production of Space*, Blackwell, Oxford, pp. 197, 343.
 38. Derickson, K. D. and MacKinnon, D. (March 2015), 'Toward an interim politics of resourcefulness for the Anthropocene', *Annals of the Association of American Geographers*, Vol. 105, No. 2, pp. 304–312; MacKinnon, D. and Derickson, K. D. (April 2013), 'From resilience to resourcefulness: A critique of resilience policy and activism', *Progress in Human Geography*, Vol. 37, No. 2, pp. 253–270.
 39. Nussbaum, M. C. (2011), *Creating Capabilities*, Harvard University Press, Cambridge, MA.
 40. Cottam, H. (2018), *Radical Help: How We Can Remake the Relationships Between Us and Revolutionise the Welfare State*, Hachette, London.
 41. UCL Institute for Global Prosperity, see <https://www.ucl.ac.uk/bartlett/igp/> (accessed 11th February, 2020).

Urban Regeneration 3.0: Realising the potential of an urban psychology

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Abstract In the West, in the post-war and post-industrial period, urban regeneration has undergone a critical shift, from focusing primarily on the built environment (1.0) to focusing also on activity within it (2.0). Predicated upon a more holistic 'place-based' approach, building culture, health, human capital, learning and other capabilities has informed or led regeneration programmes, often improving outcomes. Yet even with this shift, regeneration and renewal interventions have not always succeeded fully in their aims; they have missed opportunities, and in some cases have been detrimental to communities. The reasons for this are complex, but it is our contention that included in their ranks is a fundamental lack of understanding of the emotional and psychological impacts of city living as a whole, and the deeper existential impacts of regeneration programmes which literally reshape the urban landscape, displacing or blending communities at great speed. It is astonishing that psychology, the discipline most concerned with human behaviour and emotional well-being, has been almost absent from urban regeneration thinking, policy and practice. In response to this, a second potential shift is emerging, birthing 'regeneration 3.0', which is seeking to understand the intimate links and symbiotic effects which exist between place and person, taking a psychologically informed approach. Informed by their pioneering book *Psychology and the City* and their innovative 'Urban Psyche' test, since 2016 the authors have sought to make a case for the development of a new generation of urban psychology scholarship and praxis. This paper introduces readers to their thinking on why place matters to mental health and why mental health matters to place; the evolution of regeneration policy and why ways of reading the city open and foreclose opportunities

to engage psychological concerns; the potential of psychology for regeneration policy and practice; and examples of tools from psychology that might be adopted. The paper focuses mainly on UK-based regeneration, although the conclusions are potentially applicable internationally.

Keywords: *psychology, urban, cities, smart cities, psychiatry, place, policy, personality, community*

INTRODUCTION

With a new UK Government in place from December 2019, with a commitment to addressing regional inequalities by levelling up the British space economy and remediating deprived 'left behind' urban areas, it is likely that urban regeneration will be reanimated as a major policy concern throughout the 2020s. It is therefore critical that achievements and mistakes forged in past regeneration interventions are properly understood.

Any reappraisal of past regeneration projects should include an investigation of why visions for recovery have occasionally, if not often, failed to materialise; too many interventions have led not to a flourishing and revived city but to a hollowing out of communities, displaced families, degraded sociocultural networks and low-quality built environments, themselves in need of regeneration but a short time later. The results of ill-conceived regeneration can — as set out so eloquently elsewhere in this special issue — be catastrophic. Urban regeneration has transformed the prospects of numerous places and their residents but, when we put the many examples of good practice alongside our collective and extensive knowledge of what does not work, one has to ask: why has regeneration too often failed?!

Is it simply that financial concerns eventually trump all others; the systems within which regeneration operates mitigate against success; our models of service delivery are failing; our care for the vulnerable is really skin deep? Or it is

that urban revival is simply a complex and wicked public problem which is difficult to do and to get right? Perhaps it is a mix of each of these ingredients.

But there may be another reason. The proposition under scrutiny in this special issue is that urban regeneration initiatives have suffered from a fundamental lack of understanding of the emotional and psychological impacts of city living as a whole, and the deeper impacts of regeneration programmes which literally reshape the urban landscape, displacing or blending communities at great speed. In our view, it is astonishing that psychology, the discipline most concerned with human behaviour and emotional well-being, has been almost absent from urban and regeneration thinking, policy and practice. Of course, there exist notable exceptions and attempts to correct this, for example, the major US Task Force on urban psychology in 2006.² But the tenets of urban psychology remain far from mainstream thinking, and psychology as a whole has yet to gain traction on urban policy and practice in the same way as other disciplines such as planning, geography, engineering and sociology.

To set the scene for the contributions that follow, in this opening paper we draw upon a broad programme of (ongoing) research we have undertaken, to discern the important links that exist between places and the mental health of those who live in them; the evolution of regeneration practices and ways of reading the city that affect the capacity of policy makers

to think about psychological factors; the potential of psychological insights for regeneration policy and practice; and examples of tools from psychology that might be adopted. It is our contention that across the past 40 years urban regeneration has witnessed a critical shift, from focusing primarily on the built environment (1.0) to focusing also on human capabilities within it (2.0). It is our belief that, while helpful, this shift has failed to deliver enduring outcomes and that a second potential shift now needs to be made, bequeathing a significantly new approach — ‘regeneration 3.0’.

RECOGNISING THE LINKS BETWEEN PLACE AND MENTAL HEALTH

As Patrick Geddes said, ‘a city is more than a place in space, it is a drama in time’,³ implying that a city or neighbourhood is primarily an emotional experience. This is backed up by place attachment and place development theory from psychology,⁴ suggesting that we internalise our experience of place in a similar way to that of family as we develop, drawing a sense of identity and position in the world from it — or not, if that attachment is weak or negative.

Certainly, where and how we live within a place has direct consequences for our mental and emotional health. We know, for example, that certain kinds of deprivation (often concentrated in urban areas) and the adverse childhood experiences that can be associated with them can lead to severe health consequences, greatly reduced life expectancy, or people being 30 times as likely to commit suicide than residents of more affluent places.⁵ Urban mental health can be twice as bad as non-urban on some measures,⁶ and although closely linked to urban deprivation, at a time of increased concern over mental health levels generally we must question why this is.

Part of the answer may lie in the fact that we did not evolve in cities, which are relatively new in evolutionary terms. Modern humans have been around for about 200,000 years, cities for 8,000 at most, with the vast majority of people living a non-urban life until very recently. Only in 2008 did we cross the Rubicon of 50 per cent of the planet living in a city.⁷ Although we are a highly adaptable species, there is a growing body of evidence that cities challenge that ability, partly because their design and management takes little account of anciently formed, deep-seated psychological needs that we carry into modern urban life.⁸ Better-known examples include access to greenery or waterside vistas. Also, how we experience time in cities is more compressed and linear, less cyclical and organic than our ancestors, which has been linked to increased anxiety and depression,⁹ or ‘chronophobia’ — a sense of time always running out.¹⁰ Or the constant demands cities make upon our attention and ability to deal with information, when as well as vibrancy, we need quiet to reflect and process, particularly in our early years.

This does not mean that cities are *per se* the problem — in fact, cities can be the laboratories of solving the problems of their own making,¹¹ and some of the biggest issues we face, such as social cohesion, climate change and inequality — but it does mean that we need to understand far more about the connection between urban environments and mental and emotional health, particularly for regeneration programmes.

Making a link between psychology and cities, if not regeneration, has a history stretching back at least to the 1905 publication of George Simmel’s *The Metropolis and Mental Life*.¹² More recently, interest is growing: across environmental, evolutionary and social psychology; the US Task Force mentioned above;

experimental neuroscience;¹³ and recent initiatives such as the Centre for Urban Design and Mental Health.¹⁴

It is remarkable, then, that despite the increase in research and thinking on urban issues across psychology, the set of disciplines most concerned with our emotional condition, its influence has been almost entirely absent not just from regeneration, but from urban thinking as a whole.

THE EVOLUTION OF REGENERATION AND DIFFERENT WAYS OF READING THE CITY

The evolution of regeneration programmes in the UK and elsewhere has

perhaps reflected a deeper tendency to see the world around us and its challenges, including cities, through a lens focused by the major preoccupations of the day — a more subjective and less objective approach. This has resulted, until now, in a siloed approach that separates buildings from people, health from childhood experience and learning from culture.

Urban design and architecture are only two dimensions of regeneration, but ones where these challenges and changes can be clearly seen.

Three models or ways of reading the city evolving through time were proposed by the urban designer Kevin Lynch.¹⁵ The city: as a magical model of the cosmos; as machine; and as organism.



Figure 1: Buenos Aires: We see in La Boca the human need even to beautify tin shacks and invest them with meaning

Source: Authors

We have at least recognised this third model as closer to lived experience, but the reality of much city making seems stuck in the machine-mode of thinking, seeing engineering problems that need a technical solution.

This ‘machine thinking’ became particularly prevalent in the post-war era, influenced in part by Modernism and the ideas of architects such as Le Corbusier, who hypothesised that ‘a house is a machine for living in’.¹⁶ This approach reached its apotheosis in his notion of ‘cities in the sky’, so often disastrously appropriated by 1950s and 1960s planners for high-rise tenements. Le Corbusier’s ideas also found favour with the Bauhaus, itself one of the most influential design movements of all time, which has had a significant impact on city making and regeneration. The Bauhaus was also aware, however, of a more organic model of cities, evidenced by its consideration of extending its interdisciplinary approach to include Gestalt psychology¹⁷ (a system exploring human perception and behaviour through connected patterns rather than isolated events) before it was closed down by the Nazis. This could have greatly expanded the ability of the Bauhaus model to recognise the links between design, people and places.

Modernism had a tendency toward being reductionist, minimalist and machine-like, and these concerns are reflected in early regeneration programmes, with a firm focus on the built environment — the hardware of the city — forgetting the ways in which that environment is inhabited. As the cultural sociologist Michiel Schwarz and artist Joost Elfers have argued,¹⁸ it is perhaps time for a New Modernism, what they call a ‘Sustainism’, where instead of form following function, our meaning follows our connections, where plans that affect people are inclusive, open source and

co-designed locally, as opposed to decreed top-down.

During the 1980s and 1990s regeneration programmes shifted and a different focus emerged based on events, and particularly cultural activity. Barcelona turned itself around economically and literally — to face toward the sea again — in a programme that used the Olympic Games as a catalyst to wider regeneration. Glasgow’s Miles Better campaign promoted the city as a tourism destination, leading to a highly successful European City of Culture programme in 1990, turning the city’s image on its head. In 1997, the Guggenheim opened in Bilbao, catapulting the city onto the global stage as a cultural destination, in reality the culmination of a decade of regeneration.

This shift in approach from built form to activity, a ‘regeneration 2.0’, widened to explicitly include health concerns, particularly in smaller neighbourhood schemes — for example, the community-led Single Regeneration Budget programmes across the UK¹⁹ — although the health impacts of some schemes have shown mixed results and overstated claims.²⁰ Learning outcomes have also become a central theme of many regeneration programmes, such as the Coalfields Regeneration Trust²¹ operating in ex-mining communities. More recently, the links between health, learning and employment are being joined up in a more focused way, for example in the Greater Manchester Working Well partnership.²²

THE POTENTIAL FOR PSYCHOLOGICAL APPROACHES TO REGENERATION

With the exception of the latter, however, although psychological benefits undoubtedly occurred, the above programmes had little or no explicit focus on the psychological and emotional health

needs of communities. Concern with well-being in its broadest sense, including but looking beyond issues of deprivation, has risen in urban policy, for example through the introduction of happiness indices, starting at national levels²³ but now also produced for some cities.²⁴ While league tables of happiness may have helped to focus media and policy attention on these issues, a consideration of the deeper drivers of well-being which stem from psychological and emotional health is still largely absent.

Recognising this, the authors set out to research the links between psychological thought and cities, revealing an enormous potential wealth of ideas,²⁵ research and practice across the psychological community for urban and regeneration policy, which has not received the attention it deserves.

This is curious. On the one hand, urban (and within that, regeneration) policy has fundamentally failed to recognise the interface between human psychology and the urban environment — for example, that the critical social support networks that exist within places are profoundly and even terminally fractured when the built architecture that determines their scope of interaction are removed and replaced with an environment that is incapable of restoring them, or in some cases of even encouraging human interaction at all.

On the other hand, psychology — used here to describe a broad set of disciplines including psychiatry and neuroscience — has, with notable exceptions outlined above, so far failed to create any significant impact upon urban and regeneration policy making as a whole.

NEW PSYCHOLOGICAL TOOLS FOR REGENERATION PROGRAMMES

The result of this disconnect is a severely impoverished regeneration toolkit which

has little or no chance of understanding the deeper impacts of policy. A new toolkit could include taking instruments developed in psychology to originally focus on ‘person’ and refocusing them on ‘place’.

For example, the authors wondered, what would happen if a city could take a personality test: would it be introvert or extrovert, agreeable or disagreeable? So, they wrote one.²⁶ The City Personality Test has been trialled by many cities internationally, and the results are fascinating. They suggest that Antwerp, for example, is free-spirited, thrives on networks and contacts. Taking pride in improving the lives of citizens, it is precise and competent, disliking laziness. Entrepreneurial and determined, it can also come across as dominating and unforgiving. While results for the UK new town of Milton Keynes suggest it represents an idea bigger than itself, is altruistic, community and family oriented. It is sensitive but can tend toward procrastination, has a strong sense of aesthetics but can come across as cold to those unfamiliar with it.

Results do not represent any objective measure. Identity is of course too complex and multilayered to be reduced in this way, changing moment to moment, although some elements perhaps persist. The test is more about individual and group perceptions which offer a different route into a conversation about place, community, strengths and weaknesses. The test has been particularly potent where used to stimulate discussion on regeneration strategy or community engagement, because it goes with the grain of our innate tendency to humanise things around us, from our dog’s emotions to naming our cars. Community workshops using the test helped to bring apparently complex and distant rationales for regeneration strategy more easily within reach, enabling participants to

Table 1: Seven personality scales used in the City Personality Test

Introvert	Extrovert
Sensitive, self-sufficient, needs own space	Outgoing, thick-skinned, party animal, cannot act alone
Nurturing	Self-absorbed
Emotionally intelligent, caring, considerate	Self-reflective, investigative, solitary, exploitative
Agreeable	Disagreeable
Charismatic, reliable, tries to please all	Speaks its mind, charmless, unreliable
Conscientious	Spontaneous
Ethical, tidy, planner, measured, collaborative	Exciting, passionate, chaotic, risk taker
Curious	Driven
Perceptive, open-minded, tolerant, outward-looking, procrastinates, knowledgeable	Focused, judgmental, goal-oriented, ambitious, decision taker, resourceful
Integrated	Compartmentalised
Authentic, team player, participative	Siloed, go it alone, detailed
Idealistic	Practical
Spiritual, has grand and charitable aims	Rational, task-oriented

contribute from their own experience because they could talk about a place like it was a person — lacking confidence, overpromising, procrastinating. This shifted the debate from physical things to people and interactions, but also clearly revealed underlying dynamics that needed to be addressed before any scheme could succeed, often based around trust, confidence and esteem.

A Toolkit for Psychologically Resilient Cities was also sketched out, based on US psychologist Carol Ryff's 'six domains',²⁷ set out below.

1. *Self-acceptance*: Attitude towards oneself and related personal qualities;
2. *Personal growth*: Ability to develop and a sense of whether this is happening;
3. *Purpose in life*: Related to goals, meaning, sense of purpose and direction;
4. *Positive relations with others*: Ability to empathise, trust and be pro-social;
5. *Environmental mastery*: Ability to manage one's affairs, circumstances and feel some sense of control;

6. *Autonomy*: Ability to regulate behaviour from within, resisting external pressures.

Each of these domains was translated for urban policy. For example, Ryff's 'purpose in life' became 'self awareness', knowing where a city and its population wants and needs to go, and driven to help each other get there. In terms of regeneration strategy, that could include: a well-defined and shared narrative rooted in local identities and cultures; awareness of how others perceive the area, and of its own life journey; the ability to be compassionate and have generosity in its community leadership and civic life; and a plan to help everyone understand and achieve their goals.

These are all things that can be measured, and through which regeneration programmes might increase the psychological resilience of places and their communities — surely a desirable goal. The City Personality Test — currently a prototype — has been used by scores of places; a broader 'urban psyche assessment' is in development based on the

above tools, and its application is being discussed with several cities.

TOWARD REGENERATION 3.0

There is a growing body of work that is headed toward a ‘regeneration 3.0’, which seeks to understand the intimate links and effects between place and person, taking a psychologically informed approach. This special issue, which has its origins in Europe’s first Urban Psychology Summit²⁸ — ‘City, Psychology, Place’ — convened by the Heseltine Institute for Public Policy Practice and Place at the University of Liverpool and the authors of this paper, and held at Liverpool University’s London Campus in June 2019, begins the task of mapping out potential directions of travel for ‘regeneration 3.0’. In the papers that follow, contributors explore urban renewal policy choices and attendant serious mental and physical health impacts; how the experience of ‘place’ shapes individuals and communities; whether dominant personality types in an area help determine economic success; what neuroscience can tell us about urban living; and links between localised health and care, and national (NHS) strategies for urban mental health.

Readers will be free to draw their own conclusions from the collection. Here, we signpost four key points which we view to be especially pertinent.

1. *Think of ‘people and place’ together, not siloed:* Experience of ‘place’ determines much of our development and well-being. Understanding the psychological impact of policy and planning has to become a core concept for urban leadership and regeneration practitioners. Our regulatory frameworks assess impacts for the environment and economy, but not so much for individual well-being. That needs to change;

2. *Make the evidence and tools available and useable:* There is a vast well of untapped resources within psychology for those who make, manage and regenerate cities, but they are largely unknown and can be difficult to access or turn into action. Simple ways of doing this need to be found, involving funders, researchers, practitioners and policy makers jointly across the psychological and regeneration fields;
3. *Understand cities as ‘ego systems’ as well as ecosystems:* We still too often see cities through a mechanical not a human lens, machines to be fixed, not organic living entities. We need smart cities, but we need them to be emotionally intelligent places too that understand basic human need;
4. *More research into urban issues and solutions from a psychological perspective:* The psychological impacts of deprivation and inequality, what makes for ‘good’ engagement, how to unlock community assets and build in psychological resilience to urban environments, are all discussed herein. A starting point might be an assessment of the points of convergence between psychological and regeneration-related research, which would reveal both the existing potential for collaboration and the research gaps.

CONCLUSION

An innovative and new ‘regeneration 3.0’ is on the cusp of emergence. With support from funders, practitioners and policy makers, a set of approaches could be developed which seek to understand and work with the connections between person and place at a psychological and emotional as well as physical level. This is important because it has the potential to radically transform the ability of regeneration programmes to achieve their stated aims, avoid negative consequences,

and increase quality of life, place, health and productivity while reducing the need for some elements of public spending. But it will not happen by taking a ‘business as usual’ approach, and is unlikely to happen anytime soon without additional resources and action. In order to fully realise the potential of a regeneration 3.0, therefore, as well as the above actions, two other things need to happen.

First, psychologists, the different disciplines and the bodies that represent them need to engage more with the political and democratic spheres, and in doing so create much wider awareness of how psychology can help policy makers and influencers achieve shared goals. This in turn should leverage greater support from local and national government, in financial and policy terms, for embedding psychological tools within regeneration practice.

Secondly, national policies should recognise the unique roles and abilities of cities and their neighbourhoods more, for example to cohere multiple identities toward a common cause in a way that nations struggle to do. Some of the biggest issues we face — climate change, cohesion, inequality — also have a psychological component to their cause, and to their solution. Cities and neighbourhoods are the levels at which these play out, and they must be empowered to tackle them. In the UK, which is a highly centralised state by any standards, this means greater devolution from the centre to empower a more connected, interdisciplinary approach to regeneration. But it also means a broadening out of the current toolkit with which cities and regeneration practitioners equip themselves, to include psychology. That has to run parallel to a renewed focus on regeneration itself, which, in the UK at least, has slipped during the recent era of austerity.²⁹

Based on the principle of ‘what gets measured gets done’, if there were a single

action we could take forward now, it might be to ensure that the psychological impacts of policies are assessed before they are carried out. We do this for the environment as a matter of course, but not for the person or community in such an evidential way, and that needs to change.

The costs of poor mental and emotional health as a result of ill-judged regeneration policies are no less real than environmental consequences. A psychological impact assessment tool could be developed with relative ease, based on existing evidence, to understand the most important factors and predictors of place-based impacts on mental and emotional health.

As evidenced by the wealth of views in this special issue and beyond, we are already headed toward a more psychologically informed approach to regeneration. The potential for this is obvious, the rewards considerable. Yet there is a need for greater coherence of effort and voice, developing the principles of urban psychology as a networked movement, with some definite but shared goals.

The outcomes from our Urban Psychology Summit begin to set out an agenda, a manifesto even, but success will rely on doing as well as thinking. A wave of early adopters is therefore needed: regeneration practitioners who are willing to pick this agenda up and run with it, to break new ground. The evidence suggests their results will be greatly improved by doing so.

References

1. ODPM Housing, Planning, Local Government and the Regions Committee (2003), ‘Effectiveness of Government regeneration initiatives’, House of Commons.
2. Task Force on Urban Psychology (2013), ‘Toward an Urban Psychology: Research, Action, and Policy’, available at <https://www.apa.org/pi/ses/resources/publications/urban-taskforce.pdf> (accessed 27th January, 2020).
3. Geddes, P. (1915), *Cities in Evolution: An*

- Introduction to the Town Planning Movement and to the Study of Civics*, Williams and Norgate, London.
4. Lewicka, M. (2011), 'Place attachment: How far have we come in the last 40 years?', *Journal of Environmental Psychology*, Vol. 31, No. 3, pp. 207–230.
 5. Gill, T. (January 2019), 'Averse Childhood Experiences: Trauma and adult health consequences', *Psychology Today*, available at <https://www.psychologytoday.com/us/blog/breaking-the-silence/201901/adverse-childhood-experiences> (accessed 10th November, 2019).
 6. Krabbendam, L. van and Os, J. (September 2005), 'Schizophrenia and urbanicity: A major environmental influence – conditional on genetic risk', *Schizophrenia Bulletin*, Vol. 31, No. 4, pp. 795–799, available at <https://www.ncbi.nlm.nih.gov/pubmed/16150958> (accessed 10th November, 2019).
 7. UN Habitat (2008), *State of the Worlds Cities*, Habitat Press, Kenya.
 8. Landry, C. and Murray, C. (2017), *Psychology & The City: The Hidden Dimension*, Comedia, London.
 9. Fuchs, T. (August 2018), 'The Cyclical Time of the Body and its Relation to Linear Time', *Journal of Consciousness Studies*, Vol. 25, pp. 47–65.
 10. Lee, P. (2006), *Chronophobia: On Time in the Art of the 1960s*, MIT Press, Cambridge, MA.
 11. Landry, C. (2019), 'The Human Centred City', EU Publications, available at <https://op.europa.eu/en/publication-detail/-/publication/b94ce36e-c550-11e9-9d01-01aa75ed71a1/language-en> (accessed 9th January, 2020).
 12. Takooshian, H. (2005), 'Urban psychology: Its history and current status', *Journal of Social Distress and the Homeless*, Vol. 14, pp. 2–10.
 13. Ellard, C. (February 2014), 'Cities and their psychology: How neuroscience affects urban planning', *Guardian*, available at <https://www.theguardian.com/cities/2014/feb/04/cities-psychology-neuroscience-urban-planning-study> (accessed 8th January, 2020).
 14. Urban Design and Mental Health (UD/MH), available at <https://www.urbandesignmentalhealth.com/> (accessed 8th January, 2020).
 15. Lynch, K. (1981), *Good City Form*, MIT Press, Cambridge, MA.
 16. Le Corbusier, J. (1927), *Vers Une Architecture [Towards an Architecture]*, John Rodker, London.
 17. Koehler, K. (n.d.), 'More than Parallel Lines: Thoughts on Gestalt, Albers and the Bauhaus', available at <https://acpress.amherst.edu/books/intersectingcolors/chapter/more-than-parallel-lines-thoughts-on-gestalt-albers-and-the-bauhaus/> (accessed 10th November, 2019).
 18. Schwarz, M. and Elfers, J. (2010), *Sustainism is the New Modernism*, Distributed Art Publishers, New York.
 19. Rhodesi, J., Tyler, P. and Brennan, A. (n.d.), 'The Single Regeneration Budget: Final Evaluation', available at <https://www.landecon.cam.ac.uk/pdf-files/urban-and-regional-analysis/part1-final-eval-feb-07.pdf> (accessed 10th November, 2019).
 20. Atkinson, R., Thomson, H., Kearns, A. and Petticrew, M. (2006), 'Giving urban policy its "medical": Assessing the place of health in area based regeneration', *Policy & Politics*, Vol. 34, No. 1, pp. 5–26.
 21. The Coalfields Regeneration Trust (June 2019), 'Skills and Training', available at https://www.coalfields-regen.org.uk/scotland_support/skills-and-training/ (accessed 10th November, 2019).
 22. Pathways CIC, 'Working Well Programme', available at <https://www.pathwayscic.co.uk/working-well.html> (accessed 10th November, 2019).
 23. WER (2019), 'World Happiness Report', available at <https://worldhappiness.report/> (accessed 7th January, 2020).
 24. Happy City, 'Making What Matters Count', available at <http://www.happycity.org.uk/> (accessed 7th January, 2020).
 25. *Ibid.*, note 8.
 26. Urban Psyche, available at www.urbanpsyche.org (accessed 7th January, 2020).
 27. Ryff, C. and Burton, H. (2008), 'Know Thyself and Become What You Are: A Eudaimonic Approach Psychological Well Being', *Journal of Happiness Studies*, Vol. 9, pp. 13–39.
 28. Murray, C. (August 2019), 'Europe's first Urban Psychology Summit heralded great success', *Urban Psyche*, available at <https://www.urbanpsyche.org/2019/08/09/summit/> (accessed 8th January, 2020).
 29. Pugalis, L. and McGuinness, D. (2013), 'Delivering Urban Regeneration in an Age of Austerity', *The Terrier*, Vol. 18, No. 2, pp. 30–33.

The emotional and psychological impacts of London's 'new' urban renewal

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Abstract Removing people from their homes in the name of regeneration is something that potentially affects their mental and physical well-being, but this is rarely explored via an experiential perspective that focuses on people's own understanding of how their lifeworld has been disrupted. In this paper we consider the emotional and psychological impacts of recent council estate renewal on those displaced, or being displaced, from six London council estates. Our paper reveals what it feels like to be displaced, and how these feelings — of losing one's home and community — affect individuals' psychological and indeed physical health. We conclude that displacement is often experienced as a form of slow violence which entails periods of waiting and uncertainty that cause multiple conflicts and anxiety, and that suggest that the benefits of renewal may never outweigh the costs for those who are displaced.

Keywords: *estate renewal, gentrification, displacement, psychological health, stress, depression, anxiety*

INTRODUCTION

‘Gentrification can be hazardous to your health ... hospitalization rates for mental illness – including schizophrenia and mood disorders – are two times as high in displaced people versus those who stay in their neighbourhood.’¹

Displacement matters because it severs the connection between people and place. Some describe this as ‘domicide’, using this term to refer to ‘the planned, deliberate destruction of someone’s home, causing suffering to the dweller’.² Mindy Fullilove tellingly uses the metaphor of ‘root shock’ to describe what happens when homes are destroyed en masse and a neighbourhood suffers a traumatic stress reaction related to the destruction of their ‘emotional ecosystem’.³ Recent work has also suggested that such episodes of chronic urban trauma can become ‘hard-wired’ in place, with memories of the neighbourhood that once was periodically enacting episodes of ‘re-traumatisation’.⁴ ‘Un-homing’ is then a central concept in contemporary urban studies, used to explore a range of material or immaterial, deliberate or unintentional, forced or accidental, fast or slow, permanent or temporary, displacements, involving both the individual and collective loss of home spaces.⁵

There is now a substantial literature on the traumas of un-homing and the long-term damage done to communities whose neighbourhoods are sacrificed in the name of progress or modernisation. The paradox here is that the supposed social good which derives from obtaining a new home can become a form of ‘systemic violence’, one that ‘operates anonymously, systemically and invisibly through the very way society is organised’.⁶ Chris Philo argues that it is vital that we conceptualise the ‘geographies of wounding’ that result from such structural processes, rather than considering them as individual happenstance.⁷ Inevitably this encourages

a focus on the intersection of processes of urban development with racialised capitalisms which often sacrifice non-white and working-class communities in the interests of capital accumulation.

Yet oftentimes, accounts of un-homing deal at a level of generality and mourn a loss of place that is experienced differently by different residents within these broad categories of disadvantage. To document ‘domicide’ is one thing: to begin to trace the differential impacts on those individuals and households displaced is another thing, something that involves sensitive and contextually-nuanced attempts to explore questions of mental and physical well-being that does not inflate or aggravate feelings of loss. Measures of morbidity and health indicators cannot necessarily capture the impacts of un-homing on individuals, as these impacts will be felt differently, and some will be less able to cope with these impacts than others. Some individuals may be ‘resilient’ and may even seize re-homing as an opportunity to improve their lives, but others will experience anxiety, loss, and even depression, as they see their ‘lifeworld’ transformed.

To these ends, this paper considers the emotional and psychological impacts of council estate renewal in contemporary London. This issue has attracted much discussion, not least as it is seen to involve forms of ‘social cleansing’ that have classed and racialised imprints: Paul Watt’s recent documentation of the impacts of eviction on working-class women living on a council estate in East London also shows that the impacts of enforced displacement are gendered.⁸ Beyond a broad condemnation of the removal of disadvantaged social groups from estates where they have been resident over many years, the impact of this renewal on the well-being of *individuals* has, however, been little explored. Hence, in this paper we draw on in-depth research

from six council estates across London which have been earmarked for, or are undergoing, redevelopment where we have interviewed residents waiting to be rehoused or removed. Noting that removal is an ongoing process whose impact can stretch over many years rather than a one-off 'event', we argue that the effects of displacement are potentially felt even before the actual physical moment of 'un-homing'. We hence focus in this paper on what it *feels* like to be displaced from a resident's perspective, noting that this needs to be understood contextually.

COUNCIL ESTATE RENEWAL IN LONDON

England's council estates are currently undergoing a 'new' urban renewal that, ironically, threatens to repeat many of the mistakes of post-war urban renewal which disrupted local communities and exacerbated the social problems slum clearance was meant to solve.⁹ Now it is large inner city estates, particularly high-rise council estates from the 1960s and 1970s, that ministers have slated for demolition. Such estates are stigmatised as sites of concentrated social dysfunction and yet also coveted for their untapped redevelopment potential in the context of London's real estate boom. With austerity limiting their ability to bring existing estates up to Decent Homes standards, local authorities are being encouraged to cash in on their underlying land value to finance more social housing. In 2015 the London Assembly estimated that over the last decade 50 former council estates across London have received planning permission for partial or complete demolition and redevelopment at higher densities. Our own data shows the figure to be much higher (see next section), and the overall gains in social housing to be negligible when compared with the addition of large amounts of market rate accommodation in most of these settings.

Urban scholars have challenged the very idea of estate renewal as 'gentrification by stealth', intended to privatise social housing and socially cleanse the inner city of low-income communities.¹⁰ They have also raised questions about the underpinning ideal of 'mixed communities' as a poorly conceptualised and ineffective policy panacea for social ills.¹¹ There has been less focus on estate renewal as *causing* social ills. Displacement is something that needs to be considered as potentially causing individual stress and anxiety and exacerbating existing health conditions or long-term illnesses. That said, recent research has complicated the absolute distinction between forced and voluntary mobility in the context of neighbourhood change, with Kearns and Mason finding that the degree of perceived agency was important in determining whether those physically displaced by estate renewal (in Glasgow) felt themselves to be functionally, socially and psychologically disrupted by their physical move to new homes.¹² This underlines that while some might feel helpless in the face of enforced displacement from their estate, it is possible that others feel this is an opportunity to make a new start elsewhere. Much here can depend on the extent of ties one has to a neighbourhood. Hana *et al.* have tried to estimate the indirect negative costs of upheaval for displaced residents from renewal sites (see Table 1), here, it is notable that the highest estimated stressor is the 'loss of local connection, local knowledge of neighbourhood'. Factors such as having to find new schools for children, new doctors' surgeries or new modes of transport to places of work can be significant for some. Arguably less quantifiable, but obviously important, is the time and stress of moving. All house moves are to some degree stressful, in the context of displacement from council

Table 1: Indirect costs for displaced residents (Hana *et al.*)¹³

Impact duration over one year or event within first year	% households affected		'Impact value' each type		Impact per displaced household
Type of indirect negative impact	Lower estimate	Upper estimate	Lower estimate	Upper estimate	Mid-range
Finding new GP, dentist	25%	50%	£250	£500	£156
Change in social landlord	15%	35%	£500	£1,000	£213
Change in travel times, eg to work	33%	50%	£750	£1,000	£374
Moving children's school, reorganising childcare	15%	25%	£750	£2,000	£306
Loss of local connection, local knowledge of neighbourhood	66%	100%	£1,000	£3,000	£1,830
Temporary sense of exclusion in new community	25%	75%	£1,500	£4,000	£1,688
Time and stress associated with move	80%	100%	£2,000	£5,000	£3,300
Change in home security/break-in after move	1%	5%	£2,500	£5,000	£138
Fear on part-empty estate	15%	25%	£3,000	£7,500	£1,163
Increased ill-health	10%	25%	£25,000	£50,000	£7,500
Earlier death	1%	3%	£100,000	£150,000	£2,750
Total negative impact value					£19,416 c.£20,000

estates, what is crucial is that the timetable is set by someone else and the process moves at a pace of their own choosing. Long periods of not knowing what might happen to one's home can be followed by sudden announcements that demolition is imminent. This not knowing and being in a state of uncertainty about the future, is one that can create considerable stress that compounds any feelings of loss associated with the destruction of home and neighbourhood.

METHODOLOGY

The research reported here is from a three-year project looking at the impacts of council estate renewal in London since 1997. We initially collated a database that shows 198 'regeneration' schemes on 161 estates over the last 20 years where there has been significant demolition with an eye to densification or intensification of land use (ie more than 100 households have been displaced to allow for demolition and rebuilding at higher density). The total number of households 'decanted' from these estates is clearly considerable, maybe affecting as many as 150,000 residents. As well

as attempting to quantify and map the displacements,¹⁴ we have also undertaken 120 in-depth interviews on six estates (Aylesbury, Gascoigne, Ocean, Love Lane, Pepys, Carpenters) to assess the social, cultural, economic and psychological impacts of displacement. Here, we drew on Marcuse's influential conceptualisation of displacement as involving *direct* and enforced removal of low-income households via decanting/evicting them, as well as forms of *indirect* displacement where existing residents might not feel at home anymore in the neighbourhood because of changes in the identity of place.¹⁵ Those who get to move back onto the redeveloped estate may also experience what Mark Davidson calls 'phenomenological displacement'¹⁶: this means analysing not only the spatial fact or moment of displacement but also the 'structures of feeling' and 'loss of sense of place' associated with *displacement*. Our interviews included specific prompts to measure impacts on psychological, emotional and social well-being following the use of similar prompts and questions in similar research.¹⁷ Interviewing residents about their experiences of displacement can, of course, be traumatic, and they are

focused, understandably, on their own and their immediate family's 'survivability' in the face of displacement. As such we did not ask about patient histories or medical circumstances. Nonetheless, such information was often volunteered, and typically large sections of the interview were about questions of well-being. Here, we also trialled the Urban Mind app developed by the Institute of Psychiatry, Psychology and Neuroscience at King's College London, which encourages users to reflect on how their mental state is affected by city living. We wanted to measure displacee's mental states before, during, and after displacement; but the app was simply too basic and insensitive for what we needed. As such we relied on our own interviews, which allowed residents to vocalise their experiences and feelings about displacement.

THE IMPACTS OF DISPLACEMENT

Accepting the premise that displacement can involve multiple forms of violence,¹⁸ in what follows we share some of the narratives of the emotional and psychological impacts of displacement from our in-depth interviews. Many commentators suggest that processes of displacement can trigger a range of affective responses which, in some cases, are associated with psychological distress, and even post-traumatic stress.¹⁹ In what follows we argue that these can be associated with mental health issues, a conclusion that resonates strongly with Fussell and Lowe's analysis of the impact of housing displacements post-Hurricane Katrina in New Orleans.²⁰ This is not to say that all individuals found the process of displacement equally stressful or depressing, as clearly some were more 'resilient' than others. Yet for others, displacement unfolded as a series of micro-events that generated anxiety, confusion, fear, dislocation, loss, dread, and so on.

For those least able to cope, or those already living with mental illness, those emotions made the experience of being un-homed one that had seriously negative impacts on existing mental health.

The vast majority of our interviewees were reluctant movers displaying considerable displacement anxiety, and they articulated concerns about the potential upheaval of enforced movement:

'I am staying in my house, and I do not want to move. Who wants to move me? So, if you want to move me, you cannot say that "I am moving you to this place" which is not comfortable for me. I like it here! I don't want anybody to take this from me, I don't want problems with anybody.'
(Interview A)

This sense of dispossession extended to the scale of the neighbourhood with many speaking of a connection to place and a phenomenological sense in which place was being destroyed:

'I have got fantastic neighbours, honest to God my neighbours are just fantastic ... And it is like, I will be leaving all of that. And, a lot of them, they are like my family. If I am sick, we all know you can just pop in, you don't have to feel no way about knocking on the door and, and I have got the keys next door, I've got the keys for two doors away. They come, if they go away, I housesit. That is how we live. You know? And to lose all of that, and then you move, and then what are you going to get? ... And I don't want to move out, my children don't want to move out too. And you know it is very hard to find a place. Getting used to the place, do you understand?' (Interview B)

As noted in the work of Hana *et al.*,²¹ the threat of being displaced far from spaces of work, childcare, and education was also an often-raised theme that suggested that neighbourhood identity is constructed through social connections and relations:

'It is really depressing because, I don't know what is going to happen, and I don't know whether to register my son at nursery down here, or if I should, register him at nursery everywhere, outside of the area ... I don't know what is going to happen with work, because, if I have to commute from all of the way out of London it's gonna be crazy and stressful, so how long am I going to be working there, how long I am working for ...? Yeah, am I going to get help with my son in other areas or whatever? ... And I do want to go back to work, but who is going to help me to look after my son, because my son isn't old enough to go nursery at the moment. And if he does, it is going to cost me a lot of money, which then it just brings me back to the same as if I am not working. So, I might as well not be working. If I do stay in London and go for private rent, there is no point in me working because the rent for a two-bedroom, in London, is really high, and, on bus driving, you get money for bus driving, but at the same time I still have to travel to work, pay other bills, pay for car insurance and whatever else, so it just works out as way too much. So, yeah.' (Interview C)

This highlights the importance of what Paul Watt²² terms 'displacement anxiety' — that is, the subjective response to the threat of immanent direct displacement or the feeling that potential displacees have once they have either been told their home will be demolished, or when they are given notice to quit. Such displacement anxiety generates a profound sense of ontological insecurity as people literally do not 'know their place'.

While moving house is a stressful experience, the stress and anxiety reported by some appeared elevated by the enforced nature of the displacement, and exacerbated by the tactics of councils decanting residents. Elsewhere, Loretta Lees has discussed the 'state-Rachmanism' enacted on the last residents refusing to move from the Heygate Estate in Southwark.²³ In this research we also

found stress caused by the Rachmann-like tactics of other councils, here Haringey:

'Sometimes, I don't know how many times ... you don't have heat ... I don't know how many times we don't have a heater and when you called them they will say that they know, they are doing it, and nothing, that is it. Sometimes they won't tell us that there will be no hot water and they don't provide hot water, there'll be no heating system, so you have to heat your own flat with your own, like buy ... like an electric one. Because this building is a communal heating system which we paid over £1,000 per year for heating systems alone. And they do not give you any heating packs. Like, trouble you for a few days – here have this £20 or whatever ... So, they are just using all, every means just to force us to leave, to frustrate us.' (Interview D)

So, while regeneration of estates is something considered necessary in the interests of the wider community, and longer-term public health goals, in the short term it was reported by many to be a source of worsening mental health. In this sense, the act of local councils such as Haringey putting health and well-being fliers through the doors of tenants about to be removed from their estate (see Figure 1) appears hypocritical, and suggests that councils overseeing decanting have been insensitive to the health impacts that urban renewal is having.

The often slow nature of the displacements enacted by renewal is worthy of comment in this respect. Regeneration schemes are often mooted years before any firm proposals are drawn up. Plans for decanting populations follow, but it can be months if not years before compensation payments are made to leaseholders, or tenants are told what their rehousing options are. Schemes can become mired as developers go back and forth with local authorities arguing for less social housing (for reasons of 'economic viability'). The



Figure 1: Flyer sent to Love Lane Estate tenants

Source: Authors

slow violence of the regeneration schemes grinds some people down. The tortuous and exhausting processes of establishing how displacement might ultimately affect one's home-space can lead to feelings of shame, stress and anxiety.²⁴

On one of our estates, tenants had been relocated, but the remaining residents (mostly leaseholders who had bought their flats through right to buy) remained, contending with damp and mould as water poured down through their roof, as workmen struggled to access flats vacated by previous tenants. They remained in situ, waiting for news about what compensation might be offered for their flats. This sense of living in a state of abeyance encourages not just the council to disinvest, but also some residents to gradually 'give up' hope for a fair outcome:

'Yeah, so, you know, if you want to do something in the home, home improvements, for improvements, that is on hold. Because you don't want to be spending money, and then next month we have to move out, it is, so that's on hold. It is like, it is just hanging up in the air, not knowing what is going to happen, and it has been like that since 2006.' (Interview E)

For those waiting over 10 years for a confirmation of what might be happening to their home, it was dispiriting that every now and then the council would change its plans, adding to their sense of hopelessness:

'All of the time it is on your mind, and it grinds you down. And it does make you ill. It makes you sick, it really does. You know. Sometimes I get quite depressed about it ... and if I'm getting emotional ... It is hard, it is hard. Yeah, but we just have to plod on. And hope for the best and that is all you can do. But it has come to the point now where I am thinking, I have thought about it seriously, because I think because I wasn't too well and I had an operation every everything, I was thinking look, you are now this age, and, you haven't got, even

if I have got 10 or 15 years to live, I want to be happy and content in somewhere I know this is my home. No one is going to come and disrupt it. Should we just make this last move? Get somewhere and just go? And just start all over again, but I think why should I have to do that? It is like a battle. Between your, do you know what I mean? Between your heart and your head.' (Interview F)

The cumulative impacts of uncertainty meant some people's mental health was being affected on a daily basis by years of living with uncertainty:

'It is awful, and it is something, because of the uncertainty, all of those years you have been living with uncertainty. On top, if you have the mental health issues, I end up having most of the night, having a nightmare. And, all of the night I have been seeing, looking for a home but not finding a home. And then waking up really, sometimes, my sister wakes me up, because of my shouting. And everything, and you still have to put a mask on your face, and go out and fight for your community, fight for your home.' (Interview G)

The potential psychological and physical health consequences of waiting to be decanted can then be considerable. In this sense, there are important parallels to be drawn between the experiences of those being displaced within cities and those of international refugees and migrants who seek to make lives while in a state of 'limbo'.²⁵

But this is not to say that regeneration cannot produce better homes for some. On some estates, flats were outdated and central heating systems badly in need of repair. Physical neglect, and desertification (managed decline) took its toll on many estates. But those that were ultimately able to move back nearby or even back onto the redeveloped estate might have returned to a better (although often smaller) flat, but experienced different relationships with their neighbours, and not the social mixing policy makers mooted:

'[...] making new friends again with neighbours ... some neighbours we just still say "hi", we don't have a conversation, we just say "hi", that's it. We haven't fully conversated (*sic*) with them properly but slowly in due time yeah.' (Interview I)

This speaks to the theme of phenomenological loss, and the idea that one can return to a neighbourhood that has changed and feel profoundly displaced:

'I go around there, it's completely changed. I can't remember where the other, you know, my parents' flat was, because everything is changed now I don't bother to go ... I think I can't get anywhere ... I just see this was my old place because of the lamp post and where the street entrance was ... that's why I like to stand here ... I can recognise where the other houses were, but apart from that I can't.' (Interview J)

In this way, while estate renewal offered the promise of better housing and an improved neighbourhood, for many of our respondents the process created short-term anxieties about losing their home, and a longer-term displacement that could be associated with depression and melancholia.

CONCLUSION

Urban regeneration is often deemed necessary to improve the housing conditions of some of most disadvantaged. It is justified with reference to the needs of inhabitants, who are expected to benefit from the process of renewal and can be discoursed as socially improving. But this paper reveals that many residents harbour anxieties about displacement before the event, and often experience alienation and loss afterwards. In the context of London, mental health problems and mental ill health, have been historically associated with council estates, irrespective of other factors such as class, gender and ethnicity.²⁶ The fact that many council estate dwellers

have existing medical conditions means that the impacts of displacement are particularly intensely felt by some. It is interesting to note that while some commentators identify displacement as something disproportionately affecting the poor, ethnic minorities and women, perhaps we need to add people living with mental illness to this list?

Put like this, we have to ask the question: is the disruption of those communities where large numbers of residents are particularly vulnerable to displacement worth it? Given over 50,000 London council estate families and households have seen their home demolished and experienced anxiety and uncertainty, sometimes over a prolonged period, all for the sake of a net increase of around 7,000 additional affordable homes for Londoners, the answer appears to be negative. But this argument is always countered given improved housing can improve mental and physical health. Currently, we still know very little about the trade-off between short-term harms and longer-term gains, if any. But if our goal is to create better, healthier and more sustainable cities (including socially and culturally sustainable) then we do need to discuss what kinds of research and methods might do justice to these issues. As Chris Murray says, 'much more experimentation with this agenda is needed'²⁷: we need a robust evidence base on the negative (as compared to the positive) impacts of estate renewal, including better attention being paid to the emotional and psychological impacts. These impacts should be mandated to be included in viability assessments and funding should be made available for longitudinal research from the minute estate renewal is mooted. More research and thought needs to be factored into policy programmes on renewal to mitigate the violence of 'un-homing' and take seriously its pernicious impacts on health, quality of life, and well-being.

This work needs to be interdisciplinary, comparative, participative and community-based.²⁸ We hope this paper goes some way to underlining the importance of this call.

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References

1. Robiou, M. (March 2018), 'When Gentrification is a Mental Health Issue', City Lab, available at <https://www.citylab.com/equity/2018/03/when-gentrification-is-a-mental-health-issue/556526/> (accessed 24th January, 2020).
2. Porteous, D. (1988), 'Topocide: The annihilation of place', in Eyles, J. and Smith, D. M. (eds), *Qualitative Methods in Human Geography*, Polity Press, Cambridge.
3. Fullilove, M. (2004), *Root Shock: How Tearing Up City Neighborhoods Hurts America, And What We Can Do About It*, One World/Ballantine Books, New York.
4. Pain, R. (November 2018), 'Chronic urban trauma: The slow violence of housing dispossession', *Urban Studies*, Vol. 5, No. 2, pp. 385–400.
5. Elliot-Cooper, A., Hubbard, P. and Lees, L. (February 2019), 'Moving beyond Marcuse: Gentrification, displacement, and the violence of un-homing', *Progress in Human Geography*.
6. Baeten, G., Westin, S., Pull, E. and Molina, I. (2017), 'Pressure and violence: Housing renovation and displacement in Sweden', *Environment and Planning A: Economy and Space*, Vol. 49, No. 3, pp. 631–651.
7. Philo, C. (2005), 'The geographies that wound', *Population, Space, Place*, Vol. 11, pp. 441–454.
8. Watt, P. (2018), 'The pain of moving, moving, moving: Evictions, displacement and the logics of expulsion in London', *L'Année Sociologique*, Vol. 68, No. 1, pp. 67–100.
9. Young, M. and Willmott, P. (1957), *Family and Kinship in East London*, Routledge and Kegan Paul, London.
10. Lees, L. (2014a), 'The urban injustices of New Labour's "new urban renewal": The case of the Aylesbury Estate in London', *Antipode*, Vol. 46, No. 4, pp. 921–947; Lees, L. (2014b), 'The death of sustainable communities in London?', in Imrie, R. and Lees, L. (eds), *Sustainable London? The Future of a Global City*, Policy Press, Bristol, pp. 149–172.
11. Bridge, G., Butler, T. and Lees, L. (eds) (2011), *Mixed Communities: Gentrification by Stealth?*, Policy Press, Bristol.
12. Kearns, A. and Mason, P. (2013), 'Defining and measuring displacement: Is relocation from restructured neighbourhoods always unwelcome and disruptive?', *Housing Studies*, Vol. 28, pp. 177–204.
13. Hanna, K., Oduwaiye, A. and Redman, P. (2016), *Another Storey: The Real Potential for Estate Densification*, Centre for London, London.
14. Easton, S., Lees, L., Hubbard, P. and Tate, N. (2019), 'Measuring and mapping displacement: The problem of quantification in the battle against gentrification', *Urban Studies*, Vol. 57, No. 2, pp. 286–306.
15. Marcuse, P. (1986), 'Abandonment, Gentrification, and Displacement: The Linkages in New York City', in Smith, N. and Williams, P. (eds), *Gentrification of the City*, Allen and Unwin, Boston, pp. 121–152.
16. Davidson, M. (2009), 'Displacement, Space/Place and Dwelling: Placing gentrification debate', *Ethics, Place and Environment*, Vol. 12, pp. 219–234.
17. *Ibid.*, note 12; Goetz, E. (2013), *New Deal Ruins: Race, Economic Justice, and Public Housing Policy*, Cornell University Press, Ithaca, NY; Fried, M. (1966), 'Grieving for a Lost Home: The Psychological Costs of Relocation', in Wilson, J. (ed.), *Urban Renewal: The Record and the Controversy*, MIT Press, Cambridge, MA.
18. *Ibid.*, note 5.
19. Fried, *ibid.*, note 17; *Ibid.*, note 3; Manzo, L. C., Kleit R. G. and Couch, D. (2008), "'Moving three times is like having your house on fire once": The experience of place and impending displacement among public housing resident', *Urban Studies*, Vol. 45, pp. 1855–1878; Crawford, B. and Sainsbury, P. (2017), 'Opportunity or Loss? Health Impacts of Estate Renewal and the Relocation of Public Housing Residents', *Urban Policy and Research*, Vol. 35, pp. 137–149.
20. Fussell, E. and Lowe, S. (2014), 'The impact of housing displacement on the mental health of low-income parents after Hurricane Katrina', *Social Science & Medicine*, Vol. 113, pp. 137–144.
21. *Ibid.*, note 13.
22. *Ibid.*, note 8.
23. Lees (2014b), *ibid.*, note 10.
24. Wallace, A. (2015), 'Gentrification Interrupted in Salford, UK: From New Deal to "Limbo-Land" in a Contemporary Urban Periphery', *Antipode*, Vol. 47, pp. 517–538.
25. Brun, C. and Fábos, A. H. (2017), 'Mobilizing Home for Long-Term Displacement: A Critical Reflection on the Durable Solutions', *Journal of Human Rights Practice*, Vol. 2, pp. 177–183.
26. McCarthy, P., Byrne, D., Harrison, S. and Keithley, J. (1985), 'Housing type, housing location and mental health', *Social Psychiatry*, Vol. 20, No. 3, pp. 125–130.
27. Murray, C. (2019), 'States of mind', *RSA Journal*, Vol. 2, pp. 10–15.
28. Hyra, D., Moulden, D. and Fullilove, M. (2019), 'A method for making the just city: Housing, gentrification and health', *Housing Policy Debate*, Vol. 3, pp. 421–431.

From ‘root shock’ to ‘Main Street’: For a *biopsychosocial* urban psychology

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Abstract In this paper, the author reflects upon a lifetime of scholarship and activism which has sought to increase the urban policy literacy of psychiatrists and the psychiatric literacy of urban policy makers. She underscores the generative importance in her thinking of a unique intellectual ‘progressive’ niche-milieu which emerged in US psychiatry in the late 1970s and early 1980s and in particular the insights provided by George Engel's Biopsychosocial Model; charts her research on forms of urban development in US cities that have left as their legacy mass displacement and gentrification, which has wounded disproportionately poorer and ethnic communities and caused ‘root shock’; and outlines her hopes for a new tradition of *Biopsychosocial* informed urban regeneration and renewal which seeks to nurture and thicken communities and pro-social spaces so as to protect, repair and heal the mental health of those hitherto construed as ‘casualties of progress’. In this, she calls attention to the literal and figurative importance of the idea of the ‘Main Street’ in projects of healing.

Keywords: *George Engel, biopsychosocial model, American Psychiatric Association, Jeanne Spurlock, serial forced displacement*

INTRODUCTION

Guided by George Engel's Biopsychosocial Model of health, for 40 years the author has examined people's mental health within the context of a hierarchy of nested systems, paying special attention to families, neighbourhoods and cities. Her central thesis has been that good mental health arises from strong, dense tissues of supportive relationships, enabled by access to society's resources and opportunities. As a corollary, mental and physical health

deteriorate as societal programmes destroy these enabling ecosystems, leaving people isolated and alienated. Alas in the US, too many urban development programmes have had a deleterious impact on the fabric of social networks and exacted uneven psychic costs on residents by class, race, age and gender. In particular, financial, property and investments dynamics have often energised forms of gentrification that have displaced working-class and ethnic communities, causing what might be

called ‘root shock’. To properly understand and remediate root shock, there is a need to place the nexus between cities and mental health — and thereafter effective psychiatric interventions — within their proper historical, political and socio-spatial context. Here the literal and figurative value of the idea of the ‘Main Street’ may prove instructive.

GEORGE ENGEL'S BIOPSYCHOSOCIAL MODEL

The American Psychiatric Association (APA) runs a fellowship programme that supports minority resident doctors, in which the author participated from 1979–1982. Jeanne Spurlock and the organising team introduced participants to a network of accomplished minority psychiatrists, financed attendance of fellows at association meetings and provided them with a stipend they could use to create programmes. For a black resident in an all-white hospital, this experience was a source of guidance and pleasure. Much of the standard residency learning programme was linked to the internal world of the patient.

The fellowship provided access to people and learning that helped to contextualise and articulate the relationship between the internal and the external in people’s lives, connecting psychological processes with capitalism, racism, patriarchy and other forces outside the individual.

It was during this period that the author first encountered George Engel’s Biopsychosocial Model. Engel, a psychiatrist who helped surgeons and internists understand their patients’ needs, had recently published a paper demonstrating how a *biopsychosocial* approach might work in a clinical setting.¹ In contrast to the biomedical model, which focused on what was going on inside the human body in circumscribed

biomedical terms, the biopsychosocial model encompassed the sociology of illness, enabling a connection to be made between the internal and external worlds of the patient. Well-being could not be reduced to healthy cognitive processes, a capacity to engage the unconsciousness or neurological circuitry. It was also a product of the weight of historical social, economic, cultural and political processes on the body and on the mind.

‘ROOT SHOCK’: THE BIOPSYCHOSOCIAL WOUNDS WROUGHT BY URBAN RENEWAL PROGRAMMES

Engel’s model has proven to be a sturdy companion in many projects examining the relationship of the person with the surrounding world.² One of the most important of these relationships is that between person and neighbourhood. For the author, Rodrick Wallace’s paper ‘A Synergism of Plagues: “Planned Shrinkage,” Contagious Housing Destruction, and AIDS in the Bronx’, published in *Environmental Research* in 1988, was especially influential.³ This paper described the ways in which the city’s policy of ‘planned shrinkage’ had destroyed inner-city neighbourhoods in New York City, dispersing the residents and creating the conditions for a rapid spread of the AIDS virus. This resonated powerfully with the author’s experience of working in the South Bronx as a psychiatric resident. It also raised significant questions which have provoked a lifetime of interest in ways in which urban policies have an impact on mental health. How does the destruction of a community affect people? What does it feel like to have your neighbourhood burn down? How can that lead to infection and the spread of disease?

Using the biopsychosocial model as a guide, the author has engaged

expansively over the fields of geography, environmental psychology, anthropology, sociology and history to find answers. The geographers taught about 'place' — bounded areas, such as one's home, that have social and psychological meaning. The environmental psychologists explained that there are essential connections between individuals and place, as well as between residents within a given place and those living in different places. These are connections of attachment, such as those described by Bowlby and others,⁴ the strong and weak social bonds that Granovetter⁵ has described, and the powerful influence of behaviour settings, established through the work of Barker and his colleagues.⁶ And the anthropologists and sociologists parsed crucial incidents, looking for clues. Anthony F. C. Wallace examined 'mazeway disintegration' (the collapse of a sociocultural system) by looking at an attack on an Iroquois village. Alexander Leighton documented community response to upheaval by following how the Japanese managed internment during the Second World War. Kai Erikson documented the aftermath of the disastrous flood at Buffalo Creek, West Virginia.

From these scholars, a set of propositions about the impact of displacement on the mental well-being of indigenous residents was steadily pieced together and finally published in the *American Journal of Psychiatry* in 1996.⁷ At its core was the idea that place identity, place orientation and place attachment were fundamental dimensions of the human condition, linking people to place. When disrupted by displacement, these necessary connections needed to be healed. If they were not, disorientation, alienation and nostalgia — in the psychiatric sense, life-threatening illnesses — were likely to follow. Physical ailments would then accumulate.

This was important progress, but the question still remained about how to go deeper, to ascertain, in the face of sweeping policy impacts, 'how exactly did that feel?' This was made possible by looking at understandings of 'place' in the stories of the author's own family.⁸ What emerged in that process — and resonated with Rodrick Wallace's work on AIDS in the Bronx — was that larger social processes were shaping the family's relationships with people and places, whether it was racism (which divided the author's mother from her white family) or classist policies that sent highways through working-class neighbourhoods, destroying homes. It was essential to study some of the past policies, in order to have a model that reflected the multiple levels of scale influencing our daily lives.

Funding was secured by the author to study the American urban renewal programme, 1949–73, which carried out massive demolition in more than 2,500 'projects', affecting mainly African Americans. Research included a deep look at the embedding context of urban renewal, including the nation's long history of class and race oppression.

A key research question was: what shaped the evolution of America's particular versions of apartheid and capitalism? The US, despite arguing that its revolutionary fight was for 'freedom', established itself as a slave nation, preserving and protecting the rights of slave owners and counting slaves as only three-fifths of a person. African Americans and their white allies carried out a sustained struggle to abolish slavery and establish freedom and equality. Gains in the 'Reconstruction Era' were largely lost as inclusive democratic institutions were replaced by the Jim Crow system, which was later copied by admirers in Nazi Germany to create fascism and in South Africa to create apartheid. The long civil

rights struggle, which we can date from W. E. B. Du Bois' and William Trotter's founding of the Niagara Movement in 1905, culminated in marked victories in the mid-1960s, with the signing of the Civil Rights Act, the Voting Act and the establishment of Medicaid, which desegregated hospitals.

A paradox of the post-Civil Rights era has been that the problems supposedly 'fixed' by the civil rights movement have endured and even worsened. What emerged instead of an integrated nirvana was the 'urban crisis' — a polite way of saying an inner-city black poverty problem. Conservative politicians promulgated the idea that this was a failure of 'personal responsibility', which took hold in the public's imagination but was patently false.

The perspective of the psychology of place helps us track the 'place' story as it has emerged, which involves a series of forced displacements that stripped the wealth, social ties and political power of inner-city communities. Through that lens, we can appreciate the strength of segregated communities which managed to temper the ravages of racism through the Jim Crow era and build political power and many kinds of wealth. It was the power of these communities that was expressed in the civil rights movement. The example of the Montgomery bus boycott can illuminate this point.⁹ Rosa Parks' legendary act of civil disobedience took place on Thursday, 1st December, 1955. By Monday morning, 5th December at 6.00 a.m., 50,000 black people initiated a boycott of the buses. For more than a year they endured threats and attacks, faced layoffs, organised carpools, fed many, conducted weekly rallies and held firm until they won. Only a very well-integrated, powerful community — one with deep spiritual principles — could have accomplished such a feat.

In the background of those impressive achievements was an attack on the

collective power and wealth of African Americans, which started with urban renewal, as carried out under the Housing Act of 1949.¹⁰ Known among black people as 'Negro removal', the Housing Act authorised cities to clear 'blighted land' using the power of eminent domain and to sell the land at reduced cost to developers for 'higher uses' such as cultural centres, universities and public housing. During the 14 years of the urban renewal programme, 993 cities participated, carrying out more than 2,500 'projects'. Of those displaced, 63 per cent were African Americans; the areas destroyed included substantial portions of such important black cultural centres as the Hill District in Pittsburgh and the Fillmore in San Francisco.

The Kerner Commission's study¹¹ of civil disorder in 1967 included urban renewal in the list of factors that triggered the rebellions. The process of urban renewal tore communities apart, destroying their accumulated social, cultural, political and economic capital, as well as undermining their competitive position vis-à-vis neighbourhoods that were not disturbed.¹² This profoundly weakened affected neighbourhoods and those harms were repeated in subsequent displacements due to: planned shrinkage, the policy that spread AIDS in New York City; mass incarceration; Housing Opportunities for People Everywhere (HOPE) VI, which demolished federal housing projects; the foreclosure crisis; and gentrification.¹³

This series of displacements from neighbourhoods occurred contemporaneously with deindustrialisation, which undermined the economic foundations of older American cities, leaving unskilled workers at a severe disadvantage.¹⁴ This created massive migration to the southern states' Sun Belt, destabilising both 'sending' and 'receiving' cities. In the upheaval

caused by serial forced displacement and deindustrialisation, the epidemics of heroin and crack cocaine took off, violence soared and AIDS became a serious threat to health. Asthma and obesity flourished. Trauma, as a result of these accumulating disasters, became a major source of psychiatric illness and contributor to ill health.

The economic and social dismemberment of African American communities stole their wealth, their power and their capacity to engage in problem solving. Returning to the biopsychosocial model, we can begin to name the processes that are happening at each level of scale. The experience of trauma, grief, anger and the stress of losing one's embedding community have effects on the person. These can lead to psychiatric illness, the use of drugs and other addictions, unhealthy eating habits, autoimmune disorders and infectious diseases. The vulnerability of the individual stripped of the protection of a known and loved place is greatly increased. When social processes of constant upheaval set in, as they did because of the serial nature of these processes, the individuals were not able to re-establish a beloved community elsewhere. Then, new kinds of social organisation developed and new kinds of communication were employed. It is in this context that we find widespread social fracture, violence, addiction and refusal of participation in larger social systems through voting and other non-violent forms of action.¹⁵

The processes of urban renewal, deindustrialisation and planned shrinkage are centrifugal. The author's book *Root Shock*¹⁶ describes the ways in which the centrifugal processes tear at people's places and their lives, asking the question, 'When the centre fails, what will hold?'

The answer in the near term is that people take on the 'work' of placemaking

— attempting to simulate the sense of stability, connection and identity that place innately provides in order to keep their lives together. This is exhausting, as the very reason we create complex cities is to shift work to the built environment. That is why people struggle to rebuild as quickly as they can. This work is going on all around the world. The careful tutelage of the renowned French urbanist, Michel Cantal-Dupart, enabled a presentation by the author of the ways in which people repair fracture in a later book, *Urban Alchemy*.¹⁷

THE LITERAL AND FIGURATIVE SIGNIFICANCE OF THE IDEA OF THE 'MAIN STREET'

We need to be more committed to the maintenance and repair of precious but fragile social ecologies. As the ecologists teach us, there is no here and there, no us and them, only us and here. In this, urban regeneration policies, placemaking and urban planning must at a minimum avoid doing harm; ideally, they should strive to serve as restorative agents, incubating communities energised by solidarity and mutuality.

The author recently launched a research project titled 'Main Street'. In the past, civic and commercial centres were designed and built to provide a centripetal force for a community. Some Main Streets visited during this study have been vibrant and functional, others creeping along, some dead. When such spaces disappear, the centre is gone; people are thrown into a centrifugal crisis. When enough centres are gone, whole regions are impaired. When enough regions are reeling, the nation becomes paralysed. That is where we find ourselves in 2020 — in a dark situation with too little connection to make problem solving possible. Mounting crisis may force us to work together, but increasing

anxiety may feed anger and hatred faster than solidarity. In our terrified apartness, we could fall prey to the worst possible outcomes vis-à-vis crises such as climate change, species extinction and international warfare.

Is there a way forward? The Main Street study suggests that there is. On Cherokee Street in St Louis, the local Main Street organisation has installed a basketball court for teenagers, right there along with the shops and restaurants. It is called 'Love Bank'. While the adults are arguing about insurance and noise and the right image for the street, the kids are able to play ball. We grown-ups are trapped in our arguments, which is an inevitable outcome of gaining experience, aggravated by the centrifugal processes which took us into warring factions. But the teens can think and talk and see the crisis. If we can learn to think boldly as they do — think of the leaders who emerged after the Parkland shooting, or Greta Thunberg protesting climate change — we will have a shot at survival.

References

1. Engel, G. L. (May 1980), 'The clinical application of the biopsychosocial model', *The American Journal of Psychiatry*, Vol. 137, No. 5, pp. 535–544.
2. Fullilove, M. T. and Reynolds, T. (1984), 'Skin color in the development of identity: A biopsychosocial model', *Journal of the National Medical Association*, Vol. 76, No. 6, p. 587.
3. Wallace, R. (October 1988), 'A synergism of plagues: "Planned shrinkage," contagious housing destruction, and AIDS in the Bronx', *Environmental Research*, Vol. 47, No. 1, pp. 1–33.
4. Fullilove, M. T. (1996), 'Psychiatric implications of displacement: Contributions from the psychology of place', *The American Journal of Psychiatry*, Vol. 153, No. 12, pp. 1516–1523.
5. Granovetter, M. S. (1973), 'The strength of weak ties', *American Journal of Sociology*, Vol. 78, No. 6, pp. 1360–1380.
6. Barker, R. G. (1968), *Ecological Psychology*, Stanford University Press, Stanford, CA.
7. *Ibid.*, note 4.
8. Fullilove, M. T. (1999), *The House of Joshua: Mediations on Family and Place (Texts and Context)*, University of Nebraska, Nebraska.
9. King, Jr M. L. (2010), *Stride toward Freedom: The Montgomery Story*, Vol. 1, Beacon Press, Boston.
10. Fullilove, M. T. (2004), *Root Shock: How Tearing up City Neighborhoods Hurts America and What We Can Do About It*, One World, New York.
11. Kerner Commission (1968), 'National advisory commission on civil disorder', US Government Printing Office, Washington, DC.
12. *Ibid.*, note 10.
13. Fullilove, M. T. and Wallace, R. (2011), 'Serial forced displacement in American cities, 1916–2010', *Journal of Urban Health*, Vol. 88, No. 3, pp. 381–389.
14. Bluestone, B. and Harrison, B. (1982), *The Deindustrialization of America: Plant Closings, Community Abandonment, and the Dismantling of Basic Industry*, Basic Books, New York.
15. Cooper, H. L. F. and Fullilove, M. T. (2020), *From Enforcers to Guardians: A Public Health Primer on Ending Police Violence*, The John Hopkins University Press, Baltimore.
16. *Ibid.*, note 10.
17. Fullilove, M. T. (2013), *Urban Alchemy: Restoring Joy in America's Sorted-Out Cities*, New Village Press, New York.

Urban regeneration and the mental health and well-being challenge: In support of evidence-based policy

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Abstract The rising attention given to mental health and well-being in urban policy, urban regeneration projects and place-making practices has led to an increase in the production of a supporting research evidence base. This paper presents a reflective review of a subset of this research, that which focuses upon urban mental health and well-being as they unfold in the context of relatively disadvantaged urban communities in the UK. Particular attention is given to research which interrogates the role played by the meaningful involvement of communities in decision making in cultivating good mental health. The paper concludes by identifying where evidence gaps still exist and where the evidence base might be improved.

Keywords: *place-based policy, well-being, community well-being, social determinants of mental health*

INTRODUCTION

The rising attention given to mental health and well-being in urban policy, urban regeneration projects and place-making practices has led to an increase in the production and collation of supporting primary and secondary research evidence. Embodied particularly clearly in the work programme of the UK's What Works Centre for Wellbeing (from 2015–), this research has focused upon the impact of city spaces, neighbourhoods and communities on the psychological and social well-being of local residents. This paper presents a reflective review of a

subset of this research, that which focuses upon urban mental health and well-being as they unfold in the context of relatively disadvantaged urban communities in the UK. The paper introduces the concept of community well-being and outlines the core ingredients of interventions in places that show promise in terms of improving well-being. Attention is given in particular to the meaningful involvement of communities in local decision making. The paper concludes with a critical stocktaking of the state of the present evidence base, identifies where evidence gaps still exist and signposts where the

quality of the evidence base might be improved.

A BRIEF HISTORY OF URBAN-CENTRED MENTAL HEALTH POLICY AND THE SEARCH FOR EVIDENCE

The pledge to begin to tackle the UK population's declining mental health and well-being appeared to begin in earnest in 2011 with the publication by the Coalition Government of a key strategy document: 'No Health Without Mental Health: Cross-government mental health outcomes strategy for people of all ages'.¹ In the foreword to 'No Health Without Mental Health' the then prime minister and his deputy stated that the success of the UK would be judged not just by the success of its economy, but also by its levels of well-being. With its talk of mainstreaming mental health, tackling the determinants of mental distress and unequivocally aiming for parity of esteem between physical and mental health across prevention and treatment agendas, it looked like things were about to move forward. Adopting a life course approach to understanding mental distress and recognising the need to get things right in the early years, as well as acknowledging the key role played by socio-economic inequalities, it seemed that horns were being grasped. Sense seemed to have prevailed. Even the title appeared to signal a new and deeper understanding of the importance of mental health. Things seemed set to change so that that the despair, playing out in homes, streets and hospitals across the country, especially noticeable and sustained in certain geographical hotspots, would diminish because the complex systemic factors that inevitably made some of us more prone to despair than others would be tackled.

Then came austerity and, with it, widening inequalities, food banks, zero-hour contracts and the expansion of the

precariat. The UK's young people, already struggling, found it hard to contemplate a positive future for themselves in this glum new world. Academics in the department of public health at the University of Liverpool began exploring the extent to which austerity could be regarded as a cause of increased deaths and, in particular, deaths by suicide.² The same city's own Liverpool Mental Health Consortium told of the lived experience of deprivation and of changes to welfare processes and decisions in one of their pieces of work, *Austerity Times*. In a predictable, if ironic, turn, austerity heralded the end of this consortium, which had been set up during better times to undertake the vital service of ensuring that the voices of those who used services, and those who cared for them, were heard as local mental health policy was considered and enacted.

In short, despite the goodwill articulated (albeit with a scattering of the inevitable, oft-heard tropes) in the Government's key policy document, mental health continued to play Cinderella. Her fairy godmother had failed her, and she would not be going to the ball after all. Nowhere was Cinders more despairing than in the country's deprived inner cities and fading coastal towns.³

All the time, research has underscored the need for intervention. International thinkers in the field of public health have, over the years, made mainstream their arguments that it is not the individual who is at fault for their ill-health, but rather it is the consequences of the systems within which they operate.⁴ The logical extension to this social understanding is that the best way for individuals to take action to improve their health and well-being is for them to develop strong local networks of people who share common circumstances, concerns and interests. Such groups can come together to fight damaging

decisions taken ‘about them without them’ that often, if inadvertently, serve to widen inequality gaps. While there is nothing that innovative in this thinking, the strength of community voice has become a real force for political change within the last decade. Often aligning in the wake of trouble or to prevent disaster, we have seen the power of the Grenfell community, of Extinction Rebellion and, on social media, of #MeToo. As Haidt⁵ said, human cooperation is the most powerful force on this planet.

It follows, therefore, that the most complex, ‘wicked’ problems we face as societies, like inequality and mental distress, are most likely to be addressed through cooperative forces. At our best we are a profoundly prosocial species where our evolved altruistic tendencies, our capacity for communication and empathy and our desire for shared cultures steer us towards outcomes that favour our in-group.

The same UK prime minister responsible for ‘No Health Without Mental Health’ had, in 2010, spoken of the panacea of ‘Big Society’. Regarded suspiciously, at the time, as a political ploy that disguised local government budget cuts, the policy was not well received. However, with its roots in more socialist thinking and supported by theory and evidence from public health and psychology, Big Society could have been a cornerstone of successful, scalable outcomes. Instead, it died a speedy death because of a fundamental lack of trust in the politicians felt by the people.

Eventually, in its wake, and building on the work of the Office for National Statistics’ measurement of national well-being and the Commission on Wellbeing and Policy, the new kid on the What Works Network block was born. Aiming to synthesise the available evidence on interventions that promote well-being and to conduct new secondary data

analyses, the UK’s What Works Centre for Wellbeing launched in 2015. With the ultimate objective of making the improvement of the nation’s well-being a cross-policy target, community well-being was among its four evidence programmes. Now well into its fourth year, the Community Wellbeing Evidence Programme has produced in the region of 70 outputs that combine scholarship with real-world understandings. The initiative has enabled academics from several universities to work with civil society partners and government departments to investigate and interrogate the best evidence about the determinants of well-being in the nation’s neighbourhoods, authorities and regions and to discover what works, where and for whom when it comes to improving well-being in UK places.

Among this evidence base, there appear to be a few core ingredients that we might think of as necessary to herald improvements in place-based well-being. These will be discussed below.

URBAN MENTAL HEALTH: ENTRENCHED AND COMPLEX

‘The city is not merely a repository of pleasures. It is the stage on which we fight our battles, where we act out the drama of our own lives. It can enhance or corrode our ability to cope with everyday challenges. It can steal our autonomy or give us freedom to thrive. It can offer a navigable environment, or it can create a series of impossible gauntlets that wear us down daily. The messages encoded in architecture and systems can foster a sense of mastery or helplessness. The good city should be measured not by its distractions and amenities, but by how it affects this everyday drama of survival, work and meaning.’⁶

Social scientists back in the 1930s reported the higher prevalence of both common

and severe mental health difficulties (ie depression and schizophrenia) in inner cities compared to more rural areas.⁷ This high-income country finding is so robust and enduring that it has earned the name, the *urbanicity effect*.⁸ The relative toxicity of cities for mental health and well-being trumps the fact that farmers have among the highest suicide rates as an occupation across the world^{9,10} and that rural homes tend to be more isolated, suggesting a lack of contact with others who could provide social support. The causes of the urbanicity effect continue to be explored and debated to this day.^{11,12} Indeed, neuroscientists have reported detecting the effects of urban living and upbringing on brain functioning in the form of social stress responses.¹³

Two particularly important findings stand out in this literature, which clearly indicate that this effect is not simply one of 'social drift'. These are that there is a dose–response association between urban living in childhood and later risk of adult mental ill-health and that the effect seems to have something to do with the perceived quality of the urban living environment.^{14,15,16} These are particularly important findings because they indicate, in tangible ways, when and how we should consider intervening to lessen the effect of inner-city living on mental distress.

As the quote from Montgomery emphasises, our modern 21st-century cities are the stage sets of human pleasure and challenge — hedonia and anhedonia. The implication is that we can improve urban experience to banish the toxic while retaining the beneficial effects for us all. However, this is neither a zero-sum game nor a level playing field. Unfortunately, it seems that more often than not, improving the benefits for some means increasing the negative effects for others in our unequal, growth-dominated society. We know that poverty

and impoverishment are devastating for mental health and well-being and that disadvantaged circumstances lead to poorer general health. It therefore follows that addressing systemic inequalities is the best way to tackle ill-health and sustain good health.^{17,18,19} As poverty is relative, eradicating it will inevitably mean a levelling of resources — upwards for many and downwards for a few.

Nowhere is it easier to see and to experience poverty and impoverishment than in our cities. In one study conducted as part of the Prosocial Place Research Programme, groups of young adults were taken on a 2-mile urban walk across an area to the south of a city centre where most of them had not ventured before.²⁰ The walk was dissected by a metropolitan park that acted as a restorative 'washout' between the data collection areas that flanked it. Experiential data was collected from the individual walkers at 16 stopping points along the walk: eight in a relatively affluent area, and eight in a relatively deprived area, with the walks balanced to progress in both directions. Among the many variables measured were the level of on-the-spot threat felt by the walkers, which was higher in the more deprived area, and the extent to which the walkers felt they would trust the residents of the area, which was lower in the more deprived area. One of the most important findings of this research was that the extent to which the walkers felt they would trust the residents of the areas was very highly correlated with how wealthy the residents of the area were judged to be, demonstrating how area disadvantage effects judgments of traits that collectively contribute to social capital. It seems that, in the urban context, we have a tendency to trust those who we think have more resources. This is perhaps unsurprising but nevertheless extremely important if we are to address place stigma, an issue that is only now rising up the public health

research agenda.²¹ Indeed, earlier findings that really add insult to injury have shown that there is an individual penalty to pay, in the form of increased risk of depression, if we become attached to a stigmatised, disadvantaged place.²²

In different research, this time conducted under the auspices of a large National Institute for Health Research (NIHR) programme grant spread across the north-west coast of England, itself an area defined by health and well-being inequality, network analysis was used to examine data collected as part of a Household Health Neighbourhood Survey.²³ This analysis showed how network connections between a mental health cluster of symptoms (including anxiety, depression and feelings of persecution) and a cluster of neighbourhood (anti-)social factors were markedly absent for the least deprived wards as measured by the Index of Multiple Deprivation. These inter-cluster connections began to appear in the form of a direct relationship between symptoms of anxiety and reported neighbourhood incivilities in the moderately disadvantaged neighbourhoods and progressed to denser direct connections between mental health symptoms, namely feelings of persecution, and neighbourhood incivilities in the most disadvantaged areas. It is through analysis like this that the trajectories and relationships between the determinants of urban distress can begin to be understood.

When we start to consider the psychology that may underpin the associations between impoverished living environments and mental distress, the true complexity of the issues are further revealed, alongside their deep-seated nature. One study, for example, found that even just contemplating photographs of impoverished residential urban areas can make us anticipate more threat heading our way in the near future.²⁴

Other research has found that the diverse psychological underpinnings of mental distress, such as locus of control (ie the extent to which we feel in control of the things that happen to us) and future directed thinking, are often similarly associated with experiences characteristic of inner-city living.^{25–28}

As we begin to take action to address urban mental health, we must not lose sight of the complexity of these relationships lest we inadvertently promote costly but ineffective, possibly even damaging, urban policy and practice.

GREEN IS GOOD: THE RISKS OF DISTILLING COMPLEX EVIDENCE INTO OVERARCHING PRACTICE: THE CASE OF URBAN GREENING

If, in Clapham omnibus fashion, a random group of people were to be asked what they think can be done to improve mental health and well-being in our cities, it is likely that at least one or maybe all of them would recommend that there should be more green spaces. To be fair, this is exactly what the growing body of evidence in the area suggests. From epidemiology to qualitative sociological research and neuroscience, this applied message has rung out as clear as a bell over the past decade or so.^{29–32} Furthermore, although this finding has not been subjected to much longitudinal scrutiny, it does seem to withstand examination across time as a result of natural churn between places with and without green assets.³³ It is also good to note links made to established theory such as attention restoration theory.^{34,35} All of this implies that this wealth of evidence is compelling and, indeed, it has been well used in the support and development of city-wide green strategies, for example.

However, there is need to fear the generic spread of simple ‘green-washing’ solutions for six compelling reasons.

- First, the theoretical base needs further challenge from other disciplines, beyond biophilic accounts. These could include exploring Appleton's Prospect-Refuge theory and Gilbert's evolutionary model of human emotions,^{36–38}
- Second, the idea that the psychological effects of living in deprived places can be compartmentalised into the effects of parks, streets, roads and dwellings, while suitable for the purposes of research, in no way reflects our everyday experience of places. After all, to get to our local green space we typically have to walk through other forms of public realm that themselves contribute to negative affect and elevated cortisol responses. The quality of the wider environment within which the green space sits needs therefore to be taken into account. However, measures of that allusive attribute, 'quality of place', are hard to find;
- Third, hidden amid the 'green is good' narrative is an assumption of a universal preference for the pastoral type of landscape that European and North American parks and green spaces tend to emulate. There is a critical lack of research evidence about cross-cultural differences in 'natural landscape' preferences. Snaith's³⁹ doctoral thesis is a notable and welcome exception, showing that such preferences are, in fact, far from universal;
- Fourth, there is a limit on what green infrastructure can realistically accomplish when it comes to improving health, including mental health. Street trees must be selected for species attributes and need to be planted in appropriate places to avoid becoming pollution traps or hazards. Asthma and hay fever from urban trees will not improve mental health and we cannot expect trees to continue to 'mop up' emissions from our vehicles, which themselves contribute significantly to walkability, urban stress and threat;
- Fifth, those who suffer the most severe forms of mental distress are unlikely to benefit from green space because they often become housebound due to social anxiety, agoraphobia, deeply black moods and feelings of persecution;
- Finally, with pressed local authority budgets and the need to plan generously for sustaining adequate stewardship of green infrastructure so that it does not become a toxic asset that supports threat instead of having restorative effects, we must be mindful that other spending options exist. Those that may have as good or better effects on urban mental health and well-being include improving streets and 'grey' spaces, encouraging active travel, street cleaning, establishing and running community hubs and supporting local events or projects.⁴⁰

THE CONCEPT OF COMMUNITY WELL-BEING

It is possible to foresee a bright future for urban mental health and well-being if research, policy and practice come together to address the right questions in the right way. It is uncontroversial to assert that urban centres can facilitate the good in our human species. Our antisocial and threatening 'no-go' areas or down-at-heel towns can be turned around to become prosocial and welcoming niches, but experience tells us that this is unlikely to be achieved through top-down urban regeneration approaches. It is more likely to result when we adopt socially sustainable approaches that properly engage the key asset of cities and towns — their people. The international Transition Towns movement provides a template for this kind of optimistic, grounded approach to change. Making these changes without calling down the sword of Damocles of

gentrification upon one's head is a matter of further concern, however.

The concept of community well-being has been explored through multidisciplinary and cross-sector lenses, whereby it is claimed that community or social well-being emerges when neighbourhoods can support strong networks between people by providing the context in which people can come together to do things they enjoy and enact the meaningful changes they need in common.⁴¹ In time, a stronger sense of place and a restoration of the people-place bond will help us to develop a stronger sense of belonging to our places. This merging of communities of place with communities of interest is the way to establish 'we-ness' – a necessary and sufficient ingredient of community well-being.^{42,43} In the long-term, poverty and disadvantage need to be abolished but, in the meantime, they need not inevitably be one-way streets to mental distress as long as there is social support and neighbourliness. If 'authorities' can be prevented from taking control of decisions that should be made by communities then the changes that occur in our places are much more likely to morph into improved community well-being.^{44,45}

These assertions are not utopian but instead are consistent with the growing social movement in the prevention and treatment of mental distress.⁴⁶ At the heart of this approach is a belief that recovery, even from serious mental distress, is possible because we can experience high well-being in the context of unwanted symptoms. It is a matter of reducing the salience of distressing symptoms by engaging in activities that encourage positive feelings, enjoyed alongside supportive others, activities that provide a sense of sustainable meaning and purpose. In the UK the progress being made by the devolved nations to address improved mental health and well-being

in all policies provides room for optimism and hope. Wales' Wellbeing of Future Generations Act (2015) and Scotland's Community Empowerment Act (2015) embed excellent visions and clear paths along which to progress.

DOING THINGS WELL: THE PROCESSES OF INTERVENTION

Throughout the review work conducted for the What Works Centre for Wellbeing including on whether and how interventions in place infrastructure,⁴⁷ on joint decision making in communities,⁴⁸ and on historic places and assets⁴⁹ affect individual and community well-being, two process-related factors have stood out as core ingredients that can strongly determine whether or not place and community level changes make significant differences to the well-being of individuals and communities. They are, first, the *meaningful* involvement of people in planning, doing, progressing and evaluating activities or interventions and, second, the proper consideration of differential impacts on certain people in the community who are most likely to be affected by changes taking place.

Although it is often taken for granted that co-production and joint decision making between communities and authorities will lead to well-being benefits for those involved, our review work on joint decision making in communities demonstrated that there is precious little evidence to show that this is, in fact, the case. The problems seem to be two-fold. First, the understanding of what it meant to be meaningfully involved in co-production include all sorts of different levels of 'involvement' from tokenistic community consultation to meaningful and empowering involvement. Finding and identifying the studies that fell into the latter category was a challenge. However, we showed that the extent

of meaningful involvement determined the translation into well-being benefits both to the individual and to the wider community. Indeed, being involved at a rung lower down the seminal Arnstein's ladder of participation⁵⁰ was more likely to lead to negative impacts on the well-being of those directly involved. Frustration, exhaustion and a feeling of being brushed aside and not listened to were reported. It seems that ineffectively or half-heartedly 'doing with' may be as problematic for well-being as 'doing to' communities. On this point, it is significant that in the systematic review exploring the role of place infrastructure no primary evidence, even of a poor quality, was identified that pointed to well-being improvement from interventions that were delivered in an entirely 'top-down' fashion. On the other hand, when communities were meaningfully involved in the many forms of interventions that this large-scale evidence review captured, the transition to improved well-being was seen.

WHAT WORKS WELL: WELL-BEING PUBLIC DIALOGUES

Fortunately, many of the primary studies reviewed within the community well-being evidence programme have involved interventions in areas of relative disadvantage in the context of high-income, OECD countries. However, the reporting of evidence was rather poor in terms of the involvement of people with protected characteristics or of those on whom interventions were likely to have the most direct impact. There was also very little in the way of coverage about the distribution of impacts across different groups. It seems clear that more work needs to go into meaningfully involving under-represented groups if the aim is to change well-being at scale and to reduce well-being inequalities known to be spatially distributed and entrenched over

time.⁵¹ Notable exceptions exist, of course, including Wandsworth Coproduction⁵² which, over 15 years, has focused on the coproduction of community care and prevention using a whole system cross-faith, community empowerment network approach. The role that locally rooted social enterprises and community businesses play in addressing these matters of inclusivity can be critical and the expanding role and fortunes of initiatives like the Bromley-by-Bow centre are notable in this and other respects.

ON THE QUALITY OF THE EVIDENCE AND THE EXISTENCE OF GAPS

It is important to begin with an acknowledgment that documenting and evaluating the process and effects of interventions carried out in the messy, unpredictable and uncontrollable real world is extremely challenging. For this reason, anyone who embarks on this venture deserves encouragement for they are up against factors such as national policy changes, unknown and unmeasured parallel activities, the implications of local government initiatives, the vagaries of funding decisions and the voluntary nature of involvement. The challenges seem particularly pronounced for quantitative research that, in these contexts, can often lack statistical power due to issues such as high dropout rates. Smaller-scale qualitative studies stand more chance of meeting quality criteria assessed using standard scales such as GRADE and GRADE-CERQual which also rate the method of evaluation being undertaken.⁵³ In this regard, randomised control trials inevitably win out as the method of choice, even though, in this area they are near impossible to accomplish.

To improve the quality of evidence in the areas of urban mental health and community well-being so that we can feel more confident that what is reported is

robust and meaningful, there are a number of things that can be done. Some are simple, others more challenging.

First, it would be a good start if, when planning evaluations, investigators look at the quality assessment tools like those mentioned previously and try to document and report as many of the factors of interest as they can. This should include a clear description of the context in which the intervention has taken place, including location, IMD, ethnic diversity, and any recent or historical changes that provide the background context to, and the need for the intervention.

Increasingly, in order for an implementation or intervention to be adopted further afield for wider impact, the findings may need to be scrutinised using cost–benefit economic analysis which could include a social return on investment approach. This means that some indication of costs associated with setting up the intervention should be included as well as, for health economic assessment, the use of standardised tools to measure health and mental health status. Examples include the EQ-5D-5L questionnaire,⁵⁴ the Generalised Anxiety Disorder Scale-7,⁵⁵ the Patient Health Questionnaire-9⁵⁶ and perhaps a suitably abridged Client Service Receipt Inventory.⁵⁷ In reviews carried out as part of the Community Wellbeing Evidence Programme, the information needed for anything more than a cursory ‘back of the matchbox’ cost–benefit assessment was generally missing from primary papers.

The agreement and standardisation of well-being and community well-being assessment ‘tool box’ will also improve what can be taken from both individual evaluations and larger bodies of evidence. Just as health economists use the QALY — a standard Quality Adjusted Life Year measure to assess the overall burden of illness, so well-being researchers are calling for a WALY – a Wellbeing Adjusted Life

Year — to be devised.⁵⁸ One difficulty is that while short measures may be the best choice for speed and ease of administration, they can often leave critical information about the main issues unmeasured. While they are invariably better suited to large-scale surveys, there has been a tendency in recent years to reduce measures of well-being to a single question on life satisfaction such as that found in the Office for National personal well-being questions.⁵⁹ If more nuanced information reflecting psychological well-being, mental health symptoms or levels of distress is needed, then this degree of parsimony would not be appropriate. For this reason, a suite of approved tools and indicators, flexible enough to accommodate different research questions and rationales is required to move forward the quality of research in the area. The first step towards this has begun with the publication of a community well-being review of indicators.⁶⁰

Finally, it is not of much practical value to show that an intervention has improved hedonic well-being following a short period of immersion. For example, if you want to argue that a new park has had the effect of improving resident well-being then it is not sufficient to measure individual well-being before going to the park and then measure it again immediately on leaving. A more persuasive set of data would show that more frequent use of the park over time is positively correlated with improvements to well-being or negatively correlated with reduction of mental distress over the course of weeks or months. Even better, would be if a realistic evaluation was able to chart a reduction in visits to the GP or an increased level of productivity at work for example, alongside improved self-reported well-being.

In community well-being, there has been a concerted effort to pin down what is meant by the term and how we

should approach its measurement. There is currently a gap in terms of capturing a collective understanding of community well-being in relation to neighbourhood, town, city or region. Thus, a method for gathering perceptions of how a place functions for residents in ways known to determine well-being is needed. This, alongside an agreed, practical and easy-to-get definition and concept that captures the system of community well-being should form part of a toolkit accompanied by a low-resource method to facilitate the active consideration of differential impacts and well-being inequalities.

CONCLUSION

As city builders work to imagine cityscapes which might better promote well-being, the research base suggests that a number of priority actions merit particular attention. The nexus between austerity, inequality, poor neighbourhoods and the mental health of the precariat needs to be brought to the fore. A well-being toolkit could help urban policy makers, regeneration practitioners and place-makers enhance the visibility of well-being-centred interventions in regeneration projects. There needs to be a better understanding of the evidence and all its complexities; it is important to avoid broad brush assumptions — for instance, not ‘greenwashing’ cities for its own sake and making sure we more fully understand what trees can and cannot do for mental health and human flourishing. There needs to be a reappraisal of co-design and its processes and benefits; local knowledge and indigenous intellects need to be harnessed. And evaluation methods need to be devised to understand better the consequences and differential impacts of policy on the psychological experiences of local residents.

While chatting recently with the organiser of a very welcome conference

on Planning for Good Mental Health organised by the North West of England branch of the Royal Town Planning Institute, I declared that nothing about addressing these issues is rocket science. ‘No,’ he agreed, ‘it’s harder.’ He was right, of course. In a world where resources were plentiful and where funding organisations had capacity to tolerate uncertain outcomes, unhindered by metrics, academics could play impactful parts in tackling urban well-being challenges. With an appropriate focus on rigour and on the asking of good questions towards real solutions, the further decline in the mental health of the growing urban population can be prevented. Doing things by ‘tick box’ or by implementing current, unsuccessful dogma is no longer an option. It therefore behoves academics across all disciplines to embrace the risk of multi-sector engagement and interdisciplinary working to make the changes we need to see. As we get together to confront this challenge, we should keep in mind that place-making, being an inherently optimistic process, is measurably good for well-being⁶¹ and that every city, town and community has assets and treasures to draw on to support the improvement of mental health and well-being.

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References

1. HM Government (2011), ‘No Health Without Mental Health. A cross-government mental health outcomes strategy for people of all ages’,

- available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/138253/dh_124058.pdf (accessed 22nd September, 2019).
2. Barr, B., Taylor-Robinson, D., Stuckler, D., Loopstra, R., Reeves, A. and Whitehead, M. (2016), "'First, do no harm": Are disability assessments associated with adverse trends in mental health? A longitudinal ecological study', *Journal of Epidemiology and Community Health*, Vol. 70, pp. 339–345.
 3. Corcoran, R. (2018), 'House of Lords Select Committee on Regenerating Seaside Towns and Communities: Written Evidence', available at <https://www.parliament.uk/business/committees/committees-a-z/lords-select/regenerating-seaside-towns/publications/> (accessed 22nd September, 2019).
 4. Dahlgren, G. and Whitehead, M. (September 1993), 'Tackling inequalities in health: What can we learn from what has been tried?', Working Paper prepared for the King's Fund International Seminar on Tackling Inequalities in Health, Ditchley Park, Oxfordshire, London, King's Fund, in Dahlgren, G. and Whitehead, M. (2007), 'European strategies for tackling social inequities in health: Levelling up Part 2', WHO Regional office for Europe, Copenhagen.
 5. Haidt, J. (2012), 'Jonathan Haidt studies how – and why – we evolved to be moral and political creatures', TED, available at https://www.ted.com/speakers/jonathan_haidt (accessed 22nd September, 2019).
 6. Montgomery, C. (2013), *Happy City: Transforming our lives through urban design*, Penguin, London, p. 36.
 7. Faris, R. E. and Dunham, H. W. (1939), *Mental Disorders in Urban Areas: An Ecological Study of Schizophrenia and Other Psychoses*, The University of Chicago Press, Chicago and London.
 8. Giggs, J. A. (1986), 'Mental disorders and ecological structure in Nottingham', *Social Science & Medicine*, Vol. 23, pp. 945–961.
 9. Andersen, K., Hawgood, J., Klieve, H., Kolves, K. and De Leo, D. (2010), 'Suicide in selected occupations in Queensland: Evidence from the State suicide register', *Australian and New Zealand Journal of Psychiatry*, Vol. 44, pp. 243–249.
 10. Milner, A., Spittal, M. J., Pirkis, J. and LaMontagne, A. (2013), 'Suicide by occupation: Systematic review and meta-analysis', *The British Journal of Psychiatry*, Vol. 203, pp. 409–416.
 11. De Vylder, J. E., Kelleher, I., Lalane, M., Oh, H., Link, B. G. and Koyanagi, A. (2018), 'Association with Urbanicity with Psychosis in Low- and Middle-Income Countries', *Journal of the American Medical Association Psychiatry*, Vol. 75, pp. 678–686.
 12. Penkalla, A. M. and Kohler, S. (2014), 'Urbanicity and Mental Health in Europe: A Systematic Review', *European Journal of Mental Health*, Vol. 2, pp. 163–177.
 13. Lederbogen, F., Kirsch, P., Haddad, L., Streit, F., Tost, H., Schuch, P., Wust, S., Pruessner, J. C., Reitschel, M., Deuschle, M. and Meyer-Lindenberg, A. (2011), 'City living and urban upbringing affect neural social stress processing in humans', *Nature*, Vol. 474, pp. 498–501.
 14. Pedersen, C. B. and Mortensen, P. B. (2001), 'Evidence of a dose-response relationship between urbanicity during upbringing and schizophrenia risk', *Archives of General Psychiatry*, Vol. 58, No. 11, pp. 1039–1046.
 15. Ellaway, A., Macintyre, S. and Kearns, A. (2001), 'Perceptions of place and health in socially contrasting neighbourhoods', *Urban Studies*, Vol. 38, No. 12, pp. 2299–2316.
 16. Evans, G. W. (2003), 'The built environment and mental health', *Journal of Urban Health*, Vol. 80, No. 4, pp. 536–555.
 17. Wilkinson, R. and Pickett, K. (2010), *The Spirit Level. Why Greater Equality Makes Societies Stronger*, Bloomsbury, London.
 18. Wilkinson, R. and Pickett, K. (2018), *The Inner Level. How More Equal Societies Reduce Stress, Restore Sanity and Improve Everyone's Well-being*, Penguin, London.
 19. Marmot, M. (2015), *The Health Gap: The Challenge of an Unequal World*, Bloomsbury, London.
 20. Corcoran, R., Mansfield, R., Bezenac, C. de, Anderson, E., Overbury, K. and Marshall, G. (2018), 'Perceived neighbourhood affluence, mental health and wellbeing influence judgements of threat and trust on our streets: An urban walking study', *PLOS One*, Vol. 13, No. 8.
 21. Halliday, E., Popay, P., Cuevas, R. A. de and Wheeler, P. (2019), 'The elephant in the room? Why spatial stigma does not receive the public health attention it deserves', *Journal of Public Health*, fdy214.
 22. Stafford, M., De Silva, M., Stansfeld, S. and Marmot, M. (2008), 'Neighbourhood social capital and common mental disorder: Testing the link in a general population sample', *Health & Place*, Vol. 14, No. 3, pp. 394–405.
 23. McElroy, E., McIntyre, J. C., Bentall, R. P., Wilson, T., Holt, K., McKeown, M., Saini, P., Gabbay, M. and Corcoran, R. (2018), 'Mental Health, Deprivation and Neighbourhood Environment: A Network Analysis', *Clinical Psychological Sciences*, Vol. 7, pp. 719–734.
 24. Corcoran, R., Mansfield, R., Giokas, T., Hawkins, A., Bamford, L. and Marshall, G. (2017), 'Places Change Minds: How Brief Contemplation of Place Affects How We Think About Our Prospects', *Sage Open*, Vol. 7, No. 2.
 25. Chen, E. and Paterson, L. Q. (2006), 'Neighbourhood, family and subjective socioeconomic status: How do they relate to adolescent health?', *Health Psychology*, Vol. 25, pp. 704–714.
 26. Ross, C. E. and Mirowsky, J. (2009), 'Neighbourhood disorder, subjective alienation,

- and distress', *Journal of Health and Social Behaviour*, Vol. 50, pp. 49–64.
27. Liu, L., Feng, T., Suo, T., Lee, K. and Li, H. (2012), 'Adapting to the destitute situations: Poverty cues lead to short-term choice', *PLOS One*, Vol. 7, No. 4, pp. 1–6.
 28. Paál, T., Carpenter, T. and Nettle, D. (2015), 'Childhood socioeconomic deprivation, but not current mood, is associated with behavioural disinhibition in adults', *PeerJ*, Vol. 14, No. 3.
 29. Thompson, C. W., Roe, J., Aspinall, P., Mitchell, R., Clow, A. and Miller, D. (2012), 'More green space is linked to less stress in deprived communities: Evidence from salivary cortisol patterns', *Landscape and Urban Planning*, Vol. 105, pp. 221–229.
 30. Maas, J., Verheij, R. A., Groenewegen, P. P., Vries, S. de and Spreeuwenberg, P. (2006), 'Green space, urbanity, and health: How strong is the relation?', *Journal of Epidemiology and Community Health*, Vol. 60, pp. 587–592.
 31. Chuimento, A., Mukherjee, I., Chadna, J., Dutton, C., Rahman, A. and Bristow, K. (2018), 'A haven of green space: Learning from a pilot pre-post evaluation of a school-based social and therapeutic horticulture intervention with children', *BMC Public Health*, Vol. 18, No. 1, p. 836.
 32. Kim, M. S., Jeong, G-W., Kim, T-H., Baek, H-S., Oh, S-K., Kang, H-K., Lee, S-G., Kim, Y. S. and Song, J-K. (2010), 'Functional Neuroanatomy Associated with Natural and Urban Scenic Views in the Human Brain: 3.0T Functional MR Imaging', *Korean Journal of Radiology*, Vol. 11, pp. 507–513.
 33. Alcock, I., White, M. P., Wheeler, B. W., Fleming, L. E. and Depledge, M. H. (2014), 'Longitudinal Effects on Mental Health of Moving to Greener and Less Green Urban Areas', *Environmental Science and Technology*, Vol. 48, pp. 1247–1255.
 34. Kaplan, S. (1995), 'The restorative benefits of nature: Toward an integrative framework', *Journal of Environmental Psychology*, Vol. 15, pp. 169–182.
 35. Ohly, H., White, M. P., Wheeler, B. W., Bethel, A., Ukoumunne, O. C., Nikolaou, V. and Garside, R. (2016), 'Attention restoration theory: A systematic review of the attention restoration potential of exposure to natural environments', *Journal of Toxicology and Environmental Health, Part B*, Vol. 19, No. 7, pp. 305–343.
 36. Appleton, J. (1975), *The Experience of Landscape*, John Wiley and Sons, London.
 37. Gilbert, P. (1992), *Depression: The Evolution of Powerlessness*, Guildford Press, New York.
 38. Corcoran, R., Richardson, A., Marshall, G. and Bezenac, C. E. de (2018), 'To Dwell or not to Dwell: Attentional and Emotional Responses to Residential Place differing in Subjective Desirability', *Journal of Biourbanism*, Vol. 7, Special issue on Designing for Human Health, pp. 49–69.
 39. Snaith, B. (2015), 'The Queen Elizabeth Olympic Park: Whose Values, Whose Benefits? Investigating Ethnic Minority Under-Representation in UK Parks', unpublished PhD thesis, City University, University of London.
 40. Bagnall, A-M., South, J., Di Martino, S., Southby, K., Pilkington, G., Mitchell, B., Pennington, A. and Corcoran, R. (2018), 'Spaces, Places, People and Wellbeing: Full review. A systematic review of interventions to boost social relations through improvement in community infrastructure (places and spaces)', What Works Centre for Wellbeing, London, available at <https://whatworkswellbeing.org/product/places-spaces-people-and-wellbeing/> (accessed on 24th September, 2019).
 41. Atkinson, S., Bagnall, A-M., Corcoran, R., South, J. and Curtis, S. (2019), 'Being Well Together. Individual, Subjective and Community Wellbeing', *Journal of Happiness*.
 42. Gallotti, M. and Frith, C. D. (2013), 'Social cognition in the we-mode', *Trends in Cognitive Sciences*, Vol. 17, pp. 160–165.
 43. Corcoran, R. (2017), 'Academic Perspective: When communities of place become communities of interest: The magic catalyst of community wellbeing', What Works Wellbeing, available at <https://whatworkswellbeing.org/blog/academic-perspective-when-communities-of-place-become-communities-of-interest-the-magic-catalyst-of-community-wellbeing/> (accessed 22nd September, 2019).
 44. Pennington, A., Pilkington, G., Bache, I., Watkins, M., Bagnall, A-M., South, J. and Corcoran, R. (2017), 'Scoping review of review level evidence on co-production in local decision-making and its relationship to community wellbeing', What Works Wellbeing, available at <https://whatworkswellbeing.org/product/scoping-review-local-decision-making-and-community-wellbeing/> (accessed 25th September, 2019).
 45. Pennington, A., Watkins, M., Bagnall, A-M., South, J. and Corcoran, R. (2018), 'A systematic review of the evidence on joint decision-making on community wellbeing', What Works Wellbeing, available at <https://whatworkswellbeing.org/product/joint-decision-making-full-report/> (accessed 24th September, 2019).
 46. Beresford, P. (2002), 'Thinking about "mental health": Towards a social model', *Journal of Mental Health*, Vol. 11, pp. 581–584.
 47. *Ibid.*, note 40.
 48. *Ibid.*, note 45.
 49. Pennington, A., Jones, R., Bagnall, A-M., South, J. and Corcoran, R. (2019), 'Heritage and Wellbeing. The impact of historic places and assets on community wellbeing: A scoping review', What Works Wellbeing, available at <https://whatworkswellbeing.org/product/heritage-and-wellbeing-full-scoping-review/> (accessed 25th September, 2019).
 50. Arnstein, S. R. (1969), 'A Ladder of Citizen

- Participation', *Journal of the American Institute of Planners*, Vol. 35, pp. 216–224.
51. Abdullah, S., Wheatley, H. and Quick, A. (2017), 'Measuring wellbeing inequality in Britain', What Works Wellbeing, available at <https://whatworkswellbeing.org/product/measuring-wellbeing-inequality-in-britain/> (accessed 25th September, 2019).
 52. See <http://wccn.co.uk/wandsworth-coproduction/> (accessed 28th January, 2020).
 53. Lewin, S., Booth, A., Glenton, C., Munthe-Kass, H., Rashidian, A., Wainwright, M., Bohren, M. A., Tuncalp, O., Colvin, C. J., Garside, R., Carlsen, B., Langlois, E. V. and Noyes, J. (2018), 'Applying GRADE-CERQual to qualitative evidence synthesis findings: Introduction to the series', *Implementation Science*, Vol. 13, No. 2, available at <https://implementationscience.biomedcentral.com/articles/10.1186/s13012-017-0688-3> (accessed 26th September, 2019).
 54. Herdman, M., Gudex, C., Lloyd, A., Janssen, M., Kind, P., Parkin, D., Bonnel, G. and Badia, X. (2011), 'Development and preliminary testing of the new five-level version of EQ-5D (EQ-5D-5L)', *Quality of Life Research: An International Journal of Quality of Life Aspects of Treatment, Care and Rehabilitation*, Vol. 20, pp. 1727–1736, available at <https://euroqol.org/publications/key-euroqol-references/eq-5d-5l/> (accessed 26th September, 2019).
 55. Spitzer, R. L., Kroenke, K., Williams, J. B. and Löwe, B. (2006), 'A brief measure for assessing generalized anxiety disorder: The GAD-7', *Archives of Internal Medicine*, Vol. 166, pp. 1092–1097.
 56. Kroenke, K. and Spitzer, R. L. (2002), 'The PHQ-9: A new depression diagnostic and severity measure', *Psychiatric Annals*, Vol. 32, pp. 509–515.
 57. Beecham, J. and Knapp, M. (1992), 'Costing Psychiatric Interventions', in Thornicroft, G., Brewin, C. R. and Wing, J., *Measuring Mental Health Needs*, Gaskell, London, pp. 163–183.
 58. Johnson, R., Jenkinson, D., Stinton, C., Taylor-Phillips, S., Madan, J., Stewart-Brown, S. and Clarke, A. (2016), 'Where's WALY?: A proof of concept study of the "wellbeing adjusted life year" using secondary analysis of cross-sectional survey data', *Health and Quality of Life Outcomes*, Vol. 14, No. 126.
 59. Office for National Statistics (ONS) (2018), 'Personal Wellbeing User Guidance', available at <https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/methodologies/personalwellbeingsurveyuserguide> (accessed 26th September, 2019).
 60. Bagnall, A-M., South, J., Mitchell, B., Pilkington, G., Newton, R. and Di Martino, S. (2017), 'Systematic scoping review of indicators of community wellbeing', What Works Wellbeing, available at <https://whatworkswellbeing.org/product/community-wellbeing-indicators-scoping-review/> (accessed 26th September, 2019).
 61. Corcoran, R., Walsh, E. and Marshall, G. (2017), 'The benefits of cooperative place-making: A thematic analysis of co-design workshops', *CoDesign*, pp. 1–15.

From the couch to the concrete: How psychotherapy can help build healthy cities

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Abstract Psychotherapy offers a historical, social and relational understanding of the human condition — the being and becoming of the human — and helps people to better understand the impress of the social world on their psychologies so that they might flourish and enjoy wellness. This paper reflects upon the extent to which, thus defined, psychotherapy might usefully articulate with and enrich urban planning, design, regeneration and renewal. It weaves together a double play between psychotherapy in the city (homo-urbanus on the couch — focusing upon extending therapy to social and historical urban citizens and their psychologies) and psychotherapy of the city (concrete on the couch — construing the city as a social and historical being just as a human being and replicating psychotherapeutically informed remedies and interventions at the scale of the city). In the first case, the impress of urbanisation on psychologies and what might be done to ameliorate urban stressors provides the focus. In the second case, a more reflexive historical, social and relational understanding of the urban condition — the being and becoming of the city — could help cities themselves to more effectively harness self-care tools. The implication is clear. The psychotherapy profession should be represented in governance institutions which oversee regeneration and renewal projects so that these projects might leave as their legacy more enduring therapeutic and human-centred landscapes.

Keywords: *psychotherapy, psychosocial, relationship, innovation, urban planning, urban design*

‘The city is a complex space: a living, layered confluence of history, present and future ... It is at once personal and social.’¹

INTRODUCTION

The importance of urbanisation, place quality and place making in human

wellness and well-being is now widely recognised. Of course, the nexus between urbanisation, the built environment and mental health is clearly complex and variegated and it would be wrong to make glib generalisations. We continue to suffer from insufficient knowledge about the detailed impacts of urban dynamics and

urban form on the existential, emotional and psychological make-up of city residents. Nevertheless, the contours of a public problem are steadily becoming apparent.

Urban dwellers experience a constant overload of stimuli: noise, crowds, smells, sights, disarray and pollution abounds. Every part of the urban environment seems deliberately designed to assert meanings and messages through intense visual and sensory signs and rhetoric. Not only does the city dweller find themselves in a state of almost constant mental arousal, they may wish to shut themselves away as a response with the potential for detrimental health impacts. We know that cities are often associated with higher rates of most mental health issues compared with rural areas — an almost 40 per cent higher risk of depression and a 20 per cent greater risk of anxiety. Well-controlled epidemiological studies show elevated rates of psychotic disorders in densely populated areas. And of course, all of these outcomes are significantly worse in cities with wealth and income inequalities and high concentrations of poor people living in bleak and deprived neighbourhoods.

Writing as chief executive of the UK Council for Psychotherapy, the leading body for psychotherapeutic education, training, research and regulation in the country, engaging more than 10,000 accredited practitioners, it can be observed that notwithstanding these insights, across the UK, efforts to improve mental health continue to focus upon ‘treating’ people who already have mental health difficulties using a biomedical approach which assumes that it is faulty mental faculties operating ‘under the skull’ which require remediation and medication.

In contrast, psychotherapy offers a historical, social and relational understanding of the human condition — the being and becoming of the human being — which seeks to help people to

flourish and enjoy wellness by attending to the quality of the social worlds of which they are part. It is the contention of this paper that defined thus, there exists the potential (indeed an imperative) to create a psychotherapeutically informed tradition of urban planning, design, regeneration and renewal, which aspires to make places which serve as therapeutic incubators for human growth.

This paper weaves together a double play between psychotherapy in the city (focusing upon extending therapy to social and historical urban beings) and psychotherapy of the city (construing the city as a social and historical being just as a human being and replicating remedies at the scale of the city). Care must be taken to avoid overstretching the analytical play and conflating the literal with the metaphorical. But it is productive to draw parallels. With cities as with people, trauma and repression can colonise the unconscious and lead to negative outcomes and trapped energies. Equally, by gaining deep reflexive self-awareness and tools to manage the self, cities as with people can work to resolve bifurcating personalities and self-doubt and to build resilience and resourcefulness. Perhaps it is time to put the concrete as well as urban dwellers on the couch?

First, the paper will outline the fundamental tenets and principles of psychotherapy, specifically underscoring its distinctiveness from psychology; second, it will make the case for a new rapprochement between psychotherapy and urban planning, regeneration and place making and; finally, it will identify principles to guide future dialogue and shared practice.

THE FUNDAMENTAL TENETS OF PSYCHOTHERAPY

There is a huge mystique and some understandable fear over what

psychotherapy actually is,² so it is no wonder its applicability to the design of urban spaces may seem, initially, hard to fathom. If you to search ‘what is psychotherapy’ online, you will be confronted with a standard answer that psychotherapy is a talking therapy for mental health problems. Yet psychotherapy and psychoanalytical theory offer us a rich discourse for the understanding of everyday life. Psychotherapy offers a social and relational way of understanding what it is to be human, as opposed to a bio-medical one. Psychotherapy can be viewed in a number of ways. It is a theory of human development and functioning; it is a varied collection of modalities; it is a clinical, relational practice to enable the client or patient, or service-user to gain a deeper understanding of themselves and what may have happened to them. Productively, it presents policymakers and practitioners across many sectors with the possibility of social and relational solutions to everyday issues.

While psychology is a discipline concerned with models of ‘normal’ functioning of the human mind and of behaviours, psychotherapy is more focused on the individual (or couple, family or group) and their specific circumstances and histories.³ Sigmund Freud, the founder of psychoanalysis, was originally a medical doctor whose work with neurotic patients led him to believe emotional and mental distress was not a medical illness but rather the result of keeping experiences and thoughts buried in the unconscious. For the next 50 years, his approach to listening to and interpreting the verbal expression of feelings of patients would dominate clinical practice. This process would take a long time, often years.

It is no coincidence that psychotherapy and psychoanalytical theory originated during the *fin de siècle*, a period marked by profound social changes as well as

conflicts wrought by industrialisation and urbanisation. Upheaval was accompanied by exploration and advances in philosophy and culture, including literature, art and music. The increasing pace of life and the rise of new social groups was a source of concern to Freud and his contemporaries who were themselves living in times dominated by conservative, nationalist and anti-Semitic forces. Freud is thought of as an expert on our inner worlds, although it was impossible to ignore his own reflections on Vienna, his home city for 78 years. ‘Vienna oppresses me’, he wrote in letters in which his analysis of the city was unequivocal.⁴ It is ‘disgusting’, he opined, ‘almost physically repulsive’. The steeple of St Stephen’s cathedral was in Freud’s eyes ‘abominable’ while of his fellow citizens he fantasised that he wished ‘they had a single backside so that I could thrash them all with one stick’. Upon arriving finally to exile in London, he commented that he did in fact miss his former home. Through Freud and successors, we can better understand how our psyche, both individual and collective, is space and how, in turn, our lived environment, our sense of place, is affective.

The contemporary city is typically conceived of as a singular sprawl when, in reality, it is fragmented, a conglomeration of splits and fractures, between the haves and have-nots, the old and the new, between cultures, ethnicities even. By putting the city onto the psychoanalytic couch — and by city it is meant all its constituent parts melded as a collective entity — we can ask revealing questions of it, identifying, confronting and articulating difficult issues and experiences through a psychotherapeutic vocabulary. What might such an analysis reveal? Psychoanalysis is wrongly seen as static, as ahistorical, which may explain why it has not been more widely embraced as a more dynamic theory of culture and the psyche for the

benefit of social practices such as urban planning. Yet it is possible to read Freud's theorisations as spatial by virtue of his topographical view of the human mind. It is less about reinventing psychotherapy so that it might be more relevant to urban planning and more an exercise in drawing on aspects of the field that may have been overlooked. There is great potential here for better understanding, for example, how trauma may leave vestiges in cities as well as among its human citizens. As a charitable organisation invested in the prevention of emotional and mental distress, we are keen to forge mutually beneficial relationships with leaders and policymakers in a range of sectors, not only in health. Today, urban expansion and transformation is happening at an exponential rate, and we believe that psychotherapeutically informed urban design is but one vital and sustainable social and relational solution to the world's worsening mental health crisis.

WHAT IS PSYCHOTHERAPY'S RELEVANCE TO URBAN POLICY?

The subsequent development of psychotherapy since Freud has taken many twists and turns. In the 1950s, the influence of American psychotherapeutic approaches brought about more active and brief interventions, closer to a biomedical model of mental ill health, aimed at bringing about resolution to symptoms more quickly. This paper, however, rests its argument in a general psychotherapeutic ethic, one that chimes closely with the World Health Organization's definition of mental health as: 'a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community'.⁵ This definition is relevant for urban designers because it also reflects key

components of a thriving, resilient urban population. Psychotherapy and urban design share much commonality as a form of praxis. Urban planning is in various ways about planning for everyday life but is thought spatially.⁶ Both disciplines share a mutual foundational interest in finding solutions by gathering human data and knowledge and asking questions. Carolyn Saari's exploration of how psychoanalytical theory can inform social work practice, is also helpful to urban planning as praxis. Addressing what she argues are shortcomings in our thinking about the influence of the social environment on human function, she critiques paradigms of Western thought that have separated the individual and the environment into two quite different frameworks.⁷ She proposes that humans first construct a picture of their environment in order to construct a sense of who they are within it. Practice, she says, should be informed by and consonant with the best available understanding of human development and functioning.

Numerous forms of psychotherapy are being practised today, with different and sometimes conflicting conceptualisations. But the fundamental ethical principles that underlie the profession offer a very useful insight to other disciplines including urban policy. UKCP psychotherapist Alyss Thomas summarises usefully:

- Psychotherapy believes that each person has intrinsic value, and is worthy of love, respect and opportunities for personal growth and fulfilment. Psychotherapy attempts to provide conditions where these opportunities can be developed, such as by revisiting blockers from the past;
- The natural pursuit of authentic personal wisdom alongside psychological, emotional and spiritual freedom require self-knowledge and insight. Psychotherapy provides a special

situation wherein these qualities can be fostered and developed;

- Psychotherapy is mindfulness in action — a mindful enquiry into your own states of mind and being — that is both rigorous, dynamic and peaceful;
- Your past, including both your personal past and the history of your family and culture, does not have to determine your future, but if you do not have a method with which to apprehend it, you will continue to be driven, at times, by aspects of yourself that you do not fully understand;
- Social change can be affected by individuals who become harmonious and balanced in their own lives — and who do not create chaos and conflict.⁸

Applying a blend of these principles to a city on the couch unveils a rich topography of conscious and unconscious material within cities for deeper mutual interrogation, and case studies can help to illustrate. In the first instance, a common reason for entering therapy is to help to process and come to terms following some kind of traumatic incident. This incident may be a recent life event such as bereavement, loss of a job or divorce. That said, people often choose to revisit much earlier experiences of trauma that may go back to childhood or even infancy. Depending on the client's situation and wishes and the therapists' modality, a psychotherapeutic approach might be to interrogate and unpack those early experiences, to look at them afresh through an adult perspective that was lacking in infancy. That way, the client may make peace with the trauma and understand better how it has shaped their later feelings and actions.

What if the client on the couch were a city where a significant traumatic event had taken place? How should city policymakers and planners respond in

order to ensure a healthy and resilient future for current and future inhabitants? Over five years after the 'triple disaster' of an earthquake, a tsunami and the subsequent nuclear accident at the Fukushima Daiichi power plant that devastated Japan's Tohoku region on 11th March, 2011, Christian Dimmer wrote of the complex challenges facing the regeneration of that region comprising urban and rural conurbations. He argues that a series of what he calls 'soft policies' are needed to complement the tangible rebuilding programme if the surviving and future population is to have the necessary resilience to develop. Specifically, he says 'mere top-down directed urban planning prescriptions are likely to fall short'⁹ and calls for action to create cohesive social networks so as to realise and release the endogenous potential within.

The influential French psychoanalyst Jacques Lacan (1901–81) may help us to understand this call for a more multifaceted look at the language of urban regeneration such as in the wake of a natural or man-made disaster. Lacan took Freud's work on language towards understanding symptoms of emotional and mental distress very differently from traditional medicine — not as manifestations of illness. In his early work, Lacan theorised the symptom as a signifier that could be used to read the unconscious as structured like a language. Lacan's psychoanalysis has been shown to be particularly useful in the context of social sciences, with the planner Michael Gunder being among the first to integrate Lacanian thinking into planning. Here, depressive symptoms may be the articulation of feeling abandoned rather than there being something badly wired within the individual. For Gunder, as with Lacan, there are discourses of power at play in policy decisions. Gunder asks future analysts to continually critique

and expose 'the underlying values, fantasies and desires of urban policy formation' revealed through language.¹⁰ In other words, while the brain of urban development is firing on all cylinders, where is the heart?

As Tim Cresswell and Ginette Verstraete theorise, place is not a stage for performance, where humans can easily adapt themselves against their natures and adjust to fit with the needs of the built environment; it is a space for the creation of identity.¹¹ For planners and policymakers, it is vital to understand place is the raw material for sustainable selfhood, both our relationship with ourselves and with others.

Dimmer argues that for planning to be effective, it needs to fully engage with inhabitants. Psychotherapeutically designed participation processes in which the citizens take a central role can act as spaces where new community ties and social capital are created — vital resources for the creation of adaptable communities. Similarly, Aldrich shows convincingly that social capital and active community ties increase survival rates in times of disaster. Using the example of post-disaster reconstruction after Hurricane Katrina in 2005, he suggests that these social ties are also vital prerequisites for a swift physical reconstruction as well as for a positive sense of recovery.¹² As an extension of this argument psychotherapists would propose that citizen involvement in planning is part of resilience building itself, not merely a way to get plans through governance processes.

For cities to become part of the solution to emotional and mental distress, steps must be taken to address factors such as inequality and deprivation, to be mindful of the effect of gentrification, to minimise detrimental environmental impacts such as pollution and lack of green space as well as make efforts to provide relief from the sheer, constant

sensory overload. Many of these factors are, of course interlinked. Let us take the example of how some city areas have become segregated rather than diverse. The fact that cities are typically fragmented, split social spaces may be exacerbated by stereotypes rooted in the unconscious. The object relations of Melanie Klein¹³ along with the concept of abjection in Julia Kristeva¹⁴ are helpful in understanding the alienating, fractured design of certain city spaces into disconnected zones. Feelings of exclusion and hopelessness can be magnified by a sense of injustice, and experiences of prejudice and discrimination that may affect mental health. This is of particular concern to therapists working with children who are seeing higher incidence of mental health issues starting early in areas where there is more crime and a lack of social cohesion. Heidi Nast applied Freud's Oedipus complex to an examination of racial segregation in the US.¹⁵ The unconscious can find expression in spatial constructs, she argues. Based on research among African American youths in a district in south Chicago, she articulates racism's abiding psychical presence, continuing on through generations in the same way that trauma experienced by a great-grandparent can be felt by a great-grandchild.¹⁶ Similarly, the impact of physical displacement through intensive gentrification of neighbourhoods, includes leaving behind social and familial connections. The alternative, if available, is the stress of overworking to pay extraordinary rents for less than ideal living conditions. Millennials in particular have so much uncertainty about the future.¹⁷ Exclusion of parts of the population puts a delaying drag on a city, not just in policing and social services, but in closing down connections and opportunities for the networks and innovation needed for progress.

WHAT PRINCIPLES WOULD A PSYCHOTHERAPEUTICALLY INFORMED URBAN POLICY EMBRACE?

A fundamental learning from psychotherapy is that urban malaise is not an illness that can be treated and cured with design medicine. Urban design needs to look beyond spatial solutions and engage with those who can help to formulate social and relational strategies. A second and closely related principle is that a city should not be designed based on some abstract idea of what we might like it to be. Put at its simplest, the city is for people, not in spite of them, and should be co-created to ensure the sustainable creativity and innovation that can be harnessed through inclusivity and diversity is realised. A third principle would be to focus on the needs of children and young people.

We are living in times where we feel greatly unsettled by the pace of change. To the lay person, the language of urban development and planning feels inhuman, with a focus on ‘smart’, reflecting the desire for economic benefits via creation of an efficient infrastructure. As the urban studies writer and activist Jane Jacobs said,

‘Being human is itself difficult, and therefore all kinds of settlements (except dream cities) have problems. Big cities have difficulties in abundance, because they have people in abundance.’¹⁸

According to the first principle, we need to focus on communities by consulting and co-producing, making every corner of the city accessible to all, rather than focusing on exclusivity — high-end zones with luxury stores, expensive hotels and restaurants. It is important to sustain and strengthen existing neighbourhoods and communities, to ensure that smaller local independent shopkeepers can thrive and that people of all ages and

incomes have attractive places to gather together. By sustaining livelihoods and focusing on public spaces, it promotes the socialising and networking that contributes not only to happiness but also to innovation. Contrary to predictions that communication technologies would result in the decline of cities,¹⁹ we are instead witnessing a fresh desire for the intensity of urban life. Instead of retreating to the suburbs, the edges of cities are becoming new fringe cities in themselves.

This is exciting — it is asking planners to pay attention to, and to involve and welcome rather than ignore, the underside of global cities that do not fit the utopic ideal. It is essential that the experiences and feelings of the typically marginalised are brought into the frame because cities need to reflect multiple identities. By creating spaces that include rather than exclude, the potential for the city, as for the subject, to be resilient to trauma and to self-determine its future is optimised. This is of unimaginable significance for current and future generations by creating the very best conditions for exponential enhancement. Therefore, creating safe spaces — ideally green — where people of all backgrounds can be together is good for the city’s health on so many levels.

In terms of the second principle, place must be recognised as a social form linked directly to human culture and identity. It is essential for urban designers to understand and ameliorate the power relations inherent in the determination of space. The language used in planning is rhetoric when it should be co-productive. Space is not an objective backdrop; place is meaningful and identification is dynamic so planning must be flexible and reflexive to adapt. Given Lacan’s emphasis on the signifier, were he to place the city on the couch he might swiftly diagnose symptoms of ‘neurosis’ born out of planners’ desire to create ideal, utopic urban spaces.²⁰ For Lacan, there are two

general forms of neurosis: hysteria, which is centred on the question of sexual identity; and obsessional neurosis, which focuses on the question of death and existence.²¹ The ideal image of the city — one that is unified, whole — does very much speak to our dream of definitive, finished solutions to societal problems. There is no such thing, however, as a perfect social order, because our identities are never settled or complete. A city needs to be a place that can ‘hold’ our imperfect, flawed incomplete selves. At a basic level, loneliness is an acute 21st-century health issue. Isolation can have a significant effect on one’s health and well-being and has been deemed as damaging as smoking 15 cigarettes per day.²² According to the charity Age UK, nearly 4m older people live alone. NHS data shows that older people are twice as likely to be prescribed anti-depressants than 20-somethings,²³ suggesting the medicalisation of a natural human response to feelings of being ignored and vulnerability. Psychotherapists know how much we are meant to intersect with others, so loneliness is a failure of our environments, rather than something we can ‘fix’ for ourselves. At the most basic level, we need to love and be loved, or we do not thrive.

In terms of the third principle, there is an urgent need to create healthy environments for children where they can interact and learn safely through play. Play builds the body, teaches social skills and confidence, allows experimentation and encourages creativity and thereby prepares children for their role in the adult world. For D. W. Winnicott, a child’s ability to play offers a space for the infant to bridge the primarily narcissistic state to the demands of external reality.²⁴ Whether through parental fear of strangers, too much screen time or a lack of amenities, children are going out to play much less than in previous generations.²⁵ This is not only leading to physical health

issues such as obesity, it also means that they are losing the ability to navigate the streets on their own. By being taught to distrust all strangers, rather than the vital knack of risk assessment, they are losing their social skills. They may be taught that people different from them are bad, unworthy of their time or attention. Yet what children learn by navigating their locale may be of even greater importance than their ability to enjoy the benefits of physical play and activity, essential as those are for their health and even academic performance. Children learn about the nature of cities through their experiences in the streets; this includes the simple if often forgotten fact that people must look after each other. Only when children observe adults looking out for each other — helping someone to cross the street, giving directions, offering help with a heavy item — do they learn that people can and should do so, that it is quite normal and expected for people to look after each other. A psychotherapeutically informed planning policy would recognise that the city streets are the connective tissue in a society in which people live in interdependence. The change would not only benefit current generations but would transform their parenting of the next.

Children who live in areas with higher air pollution when younger are significantly more likely to have developed major depression by the age of 18.²⁶ Around 75 per cent of mental health problems begin in childhood or adolescence, when the brain is developing rapidly. According to Natural England only half of people in England live within 300 metres of green space and the amount of green space available is expected to decrease as urban infrastructure expands.²⁷ Being in nature has been shown to improve recovery time from stressful situations and medical procedures. A study showed that views of trees reduced the

amount of moderate to strong analgesics needed by patients' post-surgery and the number of days in hospital.²⁸ A 2014 study of lottery winners showed that the effects of winning half a million pounds wore off much more quickly than the lasting benefits of living close to green space. Money, promotions, practical matters only fulfil us in the short term.²⁹

CONCLUSION

This paper has sought to build the case for a psychotherapeutically informed tradition of urban planning, design, regeneration and renewal. Thinking in terms of psychotherapy in the city and psychotherapy of the city provides a helpful way to advance this cause. This is a momentous time for cities if they are built to embrace a more human approach. Good mental health can improve people's enjoyment, coping skills and relationships, educational achievement, crime reduction, employment, housing and economic potential, help reduce physical health problems, ease healthcare and social care costs, build social capital and decrease suicides. It is time for psychotherapy to be brought into the heart of place making and for psychotherapists to participate in a sustained dialogue with city planners, practitioners and policy makers.

Those charged with realising the expansion and generation of the urban environment of the 21st century would do well to take inspiration from some of the founding critical philosophers of 20th-century modernity such as Freud and the theorists of the human mind that he inspired. Through psychotherapeutically informed planning, those healthy cities can move closer to becoming a reality — cities that are fundamentally designed to optimise wellness, creativity and innovation. Most efforts to improve mental health are still targeted at treating

people who already have mental health problems. By designing in protective factors such as nature access, physical activity, social interaction, sleep and safety into the city, urban design innovation can add value by helping strengthen the population's resilience to aid good mental health and mental illness prevention and recovery.

It is vital that planners recognise and accommodate myriad human experiences and perspectives for the exponential growth of urban spaces to represent progress, not regression. Freud wrote that: 'Today we do not feel quite sure of our new set of beliefs, and the old ones still exist within us'.³⁰ Human-centred cities would help us to connect our innovation and creativity in ways that would allow us to thrive and grow. My organisation is working to inform policymakers about the sustainable case for improving access to high quality, rigorously regulated psychotherapies in communities, because even individual therapy radiates benefits beyond the recipient. Mental and emotional distress is felt by families, workplaces and in communities and tangible ways whether through employee sickness, divorce, anti-social behaviour, poor academic achievement and indeed through impacts on physical well-being. If therapy was free to access in community spaces, delivered by highly trained and culturally competent practitioners, the knock-on effects could be far-reaching and cost-effective because once the new vocabulary is introduced a world of possibility unfolds from person to person, generation to generation.

References

1. Samuels, J. (2019), 'Taking Space', in Rose, C. (ed.), *Psycho geography and Psychotherapy*, PCCS Books, Monmouth, p. 31.
2. Hale, M. (2019), '5 common fears that keep people out of therapy', Mindbodygreen, available at <https://www.mindbodygreen.com>.

- com/0-13317/5-common-fears-that-keep-people-out-of-therapy.html (accessed 11th February, 2020).
3. NHS (2020), 'Differences between Psychology, Psychiatry and Psychotherapy', available at <https://www.healthcareers.nhs.uk/explore-roles/psychological-therapies/differences-between-psychology-psychiatry-and-psychotherapy> (accessed 27th January, 2020).
 4. Wilson, J. (2016), 'Vienna is cited as the world's most livable city. Most exciting? Not so much', *Washington Post*, available at https://www.washingtonpost.com/lifestyle/magazine/vienna-is-cited-as-the-worlds-most-livable-city-most-exciting-not-so-much/2016/03/15/d50f6ee8-dbd3-11e5-925f-1d10062cc82d_story.html (accessed 28th October, 2019).
 5. World Health Organization (2018), 'Mental health: strengthening our response', available at <https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response> (accessed 24th February, 2020); *Ibid.*, note 4.
 6. Ploeger, J. (November 2006), 'In search of urban vitalis', *Space and Culture*, Vol. 9, No. 4, pp. 382–399.
 7. Saari, C. (1991), *The Creation of Meaning in Clinical Social Work*, Guilford Press, New York, p. 2.
 8. Thomas, A. (2020), 'Five Fundamental Principles of Psychotherapy', Alyss Thomas Psychotherapy and Coaching, available at <https://www.alyssstomaspsychotherapy.co.uk/five-fundamental-principles-of-psychotherapy/> (accessed 27th January, 2020).
 9. Dimmer, C. (March 2017), *Rethinking Resilience, Adaptation and Transformation in a Time of Change*, Springer International Publishing, New York, pp. 23–40.
 10. Gunder, M. (2005), 'Lacan, planning and urban policy formation', *Urban Policy and Research*, Vol. 23, No. 1, pp. 87–107.
 11. Verstraete, G. and Cresswell, T. (eds) (2002), *Mobilizing Place, Placing Mobility: The Politics of Representation in a Globalized World*, Rodopi, Amsterdam.
 12. Aldrich, D. P. (2012), *Building Resilience: Social Capital in Post-disaster Recovery*, University of Chicago Press, Chicago.
 13. Klein, M. (1987), *Selected Melanie Klein*, Simon and Schuster, London.
 14. Kristeva, J. (1982), 'Approaching abjection', *Oxford Literary Review*, Vol. 5, Nos. 1/2, pp. 125–149.
 15. Nast, H. J. (2000), 'Mapping the "Unconscious": Racism and the Oedipal Family', *Annals of the Association of American Geographers*, Vol. 90, No. 2, pp. 215–255.
 16. Abrams, M. S. (1999), 'Intergenerational transmission of trauma: Recent contributions from the literature of family systems approaches to treatment', *American Journal of Psychotherapy*, Vol. 53, No. 2, pp. 225–231
 17. BBC (2019), 'How it feels to have "millennial burnout": not just another typical "snowflake" issue', available at <https://www.bbc.co.uk/bbcthree/article/c384d54a-0116-437f-83e8-ddbca65b6c06> (accessed 24th February, 2020).
 18. Jacobs, J. (1961), *The Death and Life of Great American Cities*, Vintage, New York, p. 461.
 19. Graham, S. (2003), 'Imagining the Real-time City: Telecommunications, Urban Paradigms and the Future of Cities', in Westwood, S. and Williams, J. (eds) (2018), *Imagining Cities*, Routledge, London, pp. 31–48.
 20. For their Lacanian analysis of urban planning discourse and practice see Hillier, J. and Gunder, M. (2005), 'Not over your dead bodies! A Lacanian interpretation of urban planning discourse and practice', *Environment and Planning*, Vol. 37, No. 6, pp. 1049–1066.
 21. Lacan, J. (1993), *The Seminar of Jacques Lacan: Book III. The Psychoses, 1955–1956*, W. W. Norton, New York, pp. 189–190.
 22. Age UK (2019), 'Loneliness', available at <https://www.ageuk.org.uk/information-advice/health-wellbeing/loneliness/> (accessed on 21st October, 2019).
 23. Campbell, D. (2019), 'Too many older people given anti-depressants instead of therapy', *Guardian*, available at <https://www.theguardian.com/society/2019/feb/12/too-many-older-people-given-antidepressants-instead-of-therapy> (accessed 21st October, 2019).
 24. Winnicott, D. W. (1968), 'Playing: Its theoretical status in the clinical situation', *International Journal of Psychoanalysis*, Vol. 49, pp. 591–599.
 25. Bingham, J. (2016), 'British children among most housebound in world', *Telegraph*, available at <https://www.telegraph.co.uk/news/health/children/12200196/British-children-among-most-housebound-in-world.html> (accessed 21st October, 2019).
 26. Roberts, S., Arseneault, L., Barratt, B., Beevers, S., Danese, A., Odgers, C. L., Moffitt, T. E., Reuben, A., Kelly, F. J. and Fisher, H. L. (2019), 'Exploration of NO2 and PM2.5 air pollution and mental health problems using high-resolution data in London-based children from a UK longitudinal cohort study', *Psychiatry Research*, Vol. 272, pp. 8–17.
 27. Natural England (2011), 'Green space access, green space use, physical activity and overweight', available at <http://publications.naturalengland.org.uk/publication/40017> (accessed 21st October, 2019).
 28. Ulrich, R. (1984), 'View through a window may influence recovery', *Science*, Vol. 224, No. 4647, pp. 420–421.
 29. Apouey, B. and Clark, A. E. (2015), 'Winning big but feeling no better? The effect of lottery prizes on physical and mental health', *Health Economics*, Vol. 24, No. 5, pp. 516–538.
 30. Freud Museum (2019), 'Freud in Quotes', available at <https://www.freud.org.uk/2019/04/30/freud-in-quotes/> (accessed 21st October, 2019).

Neuroscience, urban regeneration and urban health

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Abstract The National Planning Policy Framework of February 2019 (Chapter 8) and London Plan draft July 2019 (Chapter 1.3.1) have directed those working on the built environment to improve the health of Londoners. To accomplish this goal, this paper will suggest urban regeneration programmes adopt the use of neuroscience, which can help understand the relationship between people, health and urban environments. This is especially relevant as the health issues which are becoming more acute in cities are related to mental and metabolic disorders which fall under the neuroscience line of study.

The challenge with introducing neuroscience to the urban realm is, however, the lack of a clear framework. To solve this challenge, this paper will put forward a new neuroscience informed software, which can help urban planners identify which areas are most vulnerable to health risks associated with urban environments. This will be of even more importance as climate change creates further built environment decay, increasing the risk for serious and chronic health issues such as anxiety, obesity, neurodevelopmental problems and depression.

Keywords: *health, neuroscience, urban regeneration, biological inequality, climate change*

INTRODUCTION

One of the greatest threats to city life and prosperity is poor health. According to the World Health Organization (WHO), 36m people worldwide die of noncommunicable diseases, which can include mental disorders such as post-traumatic stress disorder (PTSD), depression and anxiety and metabolic disorders such as diabetes and obesity.¹⁻⁴ A large proportion of these diseases can be attributed to risks related to living in urban environments.⁵ In London, 15.5 per cent of the population has been diagnosed with a mental health disorder.⁶ Additionally, 23 per cent of children aged between four and five have obesity, giving London one of the highest rates of the disorder among European cities.⁷ Obesity is considered a metabolic disorder, which left untreated could lead to a lifetime of poor health and low quality of life.⁸ These statistics point to a potential health emergency that will require systemic change and the inclusion of new specialisms such as urban planning to enter the field of health.

To understand the role of urban planning, first we must identify the physical elements that put people's health at risk. Current research points to pollutants such as air, light, thermal and noise,⁹⁻¹² which are found in ever-increasing amounts in cities all over the world. While each pollutant presents its own health risks — for example, light

pollution has the potential to disrupt melatonin production, linking it to sleep disorders and depression — it is the composite exposure to these pollutants which needs to be addressed, especially as research is indicating that when found together, they become more acute and present a higher risk to human biological systems.¹³

Another point to consider is how climate change will exacerbate these pollutants or create different ones, given how it is already wreaking havoc on poorly planned and tired infrastructure.¹⁴ There are many case studies to learn from, such as the New York City heatwave of 2019, which caused Con Edison to take pre-emptive measures to protect vital equipment due to the unprecedented usage brought on by the high temperatures.¹⁵ This resulted in Con Edison turning off the power to a neighbourhood in southeast Brooklyn. The problem with the decision was it took power away in an area that scores a 4 out of 5 in the Heat Vulnerability Index (HVI). The HVI is a metric developed by Columbia University to estimate the risk of heat-related deaths across different New York City neighbourhoods.¹⁶ Con Edison's pre-emptive action could have potentially put people's health at risk as the neighbourhood where the outage took place was already vulnerable to effects of heat.

While urban regeneration cannot make direct decisions about power grids,

it can incorporate built environment interventions to bring the urban heat index down, such as planning for more green infrastructure, creating housing regulations that require homes to be built with heatwave considerations, reducing the amount of concrete, etc. The health risks associated with heat can range from instant death or lifelong injury due to heatstroke.¹⁷ The hyperthermic element of heatstroke can also bring long-lasting neurological damage, which can lead to memory and attention differences.¹⁸

Heat is only one of the many pollutants that affect people living in cities; therefore, a key question is what happens when people are exposed to multiple pollutants and what effect this has on their biological systems? Furthermore, who are the demographics that are the most vulnerable due to levels of exposure? Understanding which areas are more vulnerable to health risks can help make more effective urban regeneration decisions related to urban health, especially as climate change puts new strains on urban infrastructure.

URBAN REGENERATION INFORMED BY NEUROSCIENCE

By 2050 London's mean summer temperature is projected to increase by 2.7 degrees.¹⁹ Given that London already has one of the highest air conditioning usages²⁰ in the UK due to climate change and urban heat island effects, a scenario similar to Brooklyn could occur in its future. To help safeguard London from the acute health effects of poor urban planning and the effects of climate change, a new neuroscience-informed approach is being proposed, which can help identify which areas pose a health risk to inhabitants.

Upgrading cities from merely places of commerce to habitats that can support human health will require a biological approach. This mission is made especially significant as cities are seeing a rise

in mental²¹ and metabolic disorders,²² which in part fall under the study of neuroscience.

Neuroscience is a multidisciplinary branch of biology and is the scientific study of the brain and nervous system.²³ The use of neuroscience in urban regeneration may help practitioners understand better the relationship between people and the places they inhabit. This understanding comes in three parts. The first is the generation of insights related to mental disorders such as depression, anxiety or PTSD and how they interact with metabolic disorders such as obesity and diabetes. The second is knowledge of how urban environments create a health risk for the aforementioned disorders. Finally, neuroscience can be used to identify areas that pose a health risk.

There are two main neuroscientific approaches which can begin to explain how urban environments interact with the human biological system. The first is looking at the stress response, which is one of the key pathways linking the internal human biological environment with the external environment. In this case, the interest is in how the biological system adapts to urban pollutants such as air, noise, thermal and light.

The stress response is mitigated by the hypothalamic-pituitary-adrenal axis (HPA-Axis) which is a series of hormonal responses that help the body adapt to stressors.^{24,25} The system engages regardless of whether it is a psychological stressor such as losing a job, financial insecurity, witnessing a crime, or a physical stressor such as illness, environmental changes or external pollutants. The HPA-Axis activation starts in the brain when the stressor — in this case a pollutant — triggers the hypothalamic production of corticotropin-releasing hormone (CRH). This trigger signals to the pituitary gland, which is also located in the brain, to synthesise the adrenal-corticotropin

releasing hormone (ACTH). ACTH is then released into the circulation system where it reaches the adrenal glands, which are located above the kidneys. Once it reaches the adrenal glands ACTH stimulates the release of cortisol, which is another regulatory hormone. Finally, cortisol circulates back to the brain through the circulation system, creating a negative feedback loop that repeats until the body comes to homeostasis or equilibrium.^{26,27}

It is important to understand that the activation of the HPA-Axis is an essential response for survival, as it provides the biological system with the means to adapt to stressors by mobilising energy reserves and regulating necessary immune responses.²⁸ In the urban 21st century, however, the majority of stressors we experience are chronic in nature. This means they do not necessarily begin as a single event, but instead are a continual burden, causing the stress response to continually engage.²⁹ A continual activation of the HPA-Axis can result in its dysregulation and a subsequent cascade of damage to human bodily systems through a process known as ‘allostatic load’ predisposing people to a range of health complications.^{30,31} The dysregulation of the HPA-Axis is a feature of many disease processes associated with chronic stress, such as diabetes, obesity, depression, PTSD and anxiety.³²

The second approach is the study of vulnerability; as the pollutants are not evenly distributed across a city, certain demographics will be more vulnerable to the risks of urban pollutants. With recent advances in data collection and modelling capabilities, high-resolution geospatially mapped pollution levels have now begun to be correlated to demographic data sets.^{33–35} The majority of findings point towards more vulnerable urban populations (low socio-economic status [SES]/ethnic minorities) experiencing

higher levels of exposure to urban pollution. This is also reflected in the research data, which identifies low SES populations as experiencing higher rates of diabetes, obesity, depression, PTSD and anxiety.^{36–39} This paper would like to propose a formal term and definition for this phenomenon: ‘biological inequality’, which is the comprehensive term that refers to the unequal distribution, exposure and vulnerability to health-threatening pollution levels within urban environments.

To distil biological inequality further, the relationship between pollutants and the disease process needs to be better understood. First, the pollutant can affect the person’s biological system directly — for example, in the case of air pollution, the particles can enter the bloodstream, lungs and brain, which can change biological functions.^{40,41} This can occur regardless of a person’s genetics or lifestyle; furthermore, it can happen at first contact and minimal exposure.⁴² When people live in neighbourhoods that have high levels of pollutants, their systems become more exposed, which over time may cause them to develop long-term physical degradation to muscles and lung tissue as well as changes to insulin and metabolic functions.^{43–45} Secondly, a pollutant is a stressor, which as we learned can dysregulate the HPA-Axis when the exposure is chronic, as we see in neighbourhoods with high levels of pollutants. Finally, research is indicating that those who live in impoverished urban environments are presented with higher levels of psychosocial stressors linked to poverty such as housing, economic and food insecurity, lack of high-quality healthcare, neglect, domestic abuse, etc.⁴⁶ They are also at a higher risk of experiencing acute trauma, which is linked to PTSD.⁴⁷ This suggests those living in poverty may already have a dysregulated HPA-Axis due to

psychosocial stressors, which may leave them with compromised immune and metabolic systems. When these vulnerable systems are exposed to pollutants, this can create a further burden on their biological functions, thereby increasing their vulnerability to disease.⁴⁸ In short, deprived environments can impose a double burden on a person's biological system, resulting in a higher risk of disease. This insight is supported by population data which shows low SES demographics having a higher prevalence of metabolic and mental disorders.⁴⁹

We also need to consider what biological inequality will look like in the face of climate change. For example, low SES communities already experience higher levels of UHI effect due to poor green infrastructure;⁵⁰ when a heatwave occurs, they experience higher micro-environmental temperatures, which puts them at a higher risk for heatstroke effects. Finally, climate change can be a source of further stressors for those living in poverty. This can range from living in cold or hot homes due to poor insulation and inability to acquire resources due to income shortages, to living in environments with mould due to wetter winters and poor ventilation. Additionally, living with mould is not just a psychological stressor of living in a visibly dilapidated environment, it can also have an effect on mental health as it is linked to both anxiety and depression.⁵¹

With this understanding, it is important for urban regeneration to include biological measures into their strategies, starting with insight from neuroscience.

URBAN REGENERATION FOR URBAN HEALTH

Traditionally, neuroscience has focused on neuroimaging studies, which show where brain functions occur. Neuroscience is currently moving from studying people in

a laboratory setting to in-situ in order to learn more about how people experience the world around them. This includes how external stimuli affect biological functions and how physical environments shape human brain development and health.⁵² This shift has been followed with neuroscience adopting a range of new tools that move beyond neuroimaging, such as virtual reality, wearable technologies (eg biosensors) and crowd-sourcing data smartphone apps such as Sea Hero Quest.⁵³

In order to answer more detailed questions and provide better solutions for urban regeneration, a deeper understanding of the human/city relationship is required. Neuroscience affords insights that translate urban stressors into health readings of a specific area, specifically disorders that are related to mental illness or metabolic disorders, which are rising in poorly planned urban environments. In order to leverage these insights for the use of urban regeneration practitioners, however, a framework is required.

In response, a novel assessment tool has been created: the Stress Risk Score (SRS). This provides combined information on various environmental pollutants prevalent in urban environments: air, light, noise and thermal pollution. This data is then interfaced against the pollutants' impact on the human stress response, resulting in an output that highlights areas of risk for built environment-induced disease.

The SRS is based on a linear scale of 0 to 4, with 0 being a less polluted area and 4 being highly polluted across all four environmental stressors. This total score is obtained by summing the individual pollutant scores. These individual scores are divided into bins from 0 to 1, based on thresholds gathered from a literature review of neuroscientific research on pollutants' effects on health through stress-related pathways. The thresholds are maximum values that the pollutant can reach before human health is significantly

at risk. Air pollution data was obtained from the London Atmospheric Emissions Inventory (LAEI) 2016 summary data set, with the threshold set to 15 $\mu\text{g}/\text{m}^3$, based on reports from the US Environmental Protection Agency (EPA).⁵⁴ Noise pollution data was obtained from the day-evening-night level (Lden) data set gathered by the Department for Environment, Food and Rural Affairs, indicating a 24-hour annual average noise level with separate weightings for the evening and night, with the threshold set at 75 dB.⁵⁵ Light pollution data was gathered from Visible Infrared Imaging Radiometer Suite (VIIRS) 2019 annual composite data, with a threshold of 61.61 VIIRS.^{56,57} The thermal pollution data was collected from the Greater London Authority (GLA) 2006 heatwave, with a threshold set at 32 degrees Celsius.⁵⁸

As the SRS is a new software, it needed a level of validation for this paper. This was done by comparing it to the well-established Index of Multiple Deprivation (IMD). The IMD is a combined weighted average score of education, built environment quality, crime, income, etc., therefore providing a good overview into areas that require urban regeneration projects. Next, a Pearson's correlation was performed between the IMD⁵⁹ and the SRS to mental health prevalence data from the NHS Digital Datastore.⁶⁰ The SRS had a correlation value of $r=0.86$ ($p<0.05$), therefore showing strong positive correlation with mental health prevalence for an area. Instead, the IMD score for living environment (one of the IMD components) had a correlation value of $r=0.77$ ($p<0.05$) with the NHS

mental health prevalence data, lower than the SRS score. Moreover, The SRS had a correlation of $r=0.91$ ($p<0.05$) with the IMD living environment values, indicating that the two measures are strongly related. These results indicate that the SRS score is a valid and accurate proxy for the impact of environmental stressors on human mental health. Since the correlation value of SRS to mental health was higher than that of living environment IMD (ie $0.86 > 0.77$), it can therefore be argued that the SRS score is a better assessment system of environmental stressors linked to mental health than IMD. This is likely because the SRS is based on pollutant data that directly leads to the activation of the human stress-response system, rather than the analysis of levels of deprivation due to the built environment.

The SRS allows for an evidence-based approach for urban regeneration to adopt when considering how best to intervene to improve urban health. To put the software into context, this paper will look at three different scenarios in London. It is important to note that the SRS is a starting point of inquiry and it can be layered with other data sets to obtain different insights. In the first scenario, the SRS was used to identify a sample of areas that score a composite score of 3.0 out of a possible 4.0, which would make them areas of high health risk. The individual pollution values are summarised in Table 1.

The individual pollutant scores indicate that air and light pollution are the common main risks in these areas leading to a high composite SRS. Poplar in Tower Hamlets was also found to be noisier than other areas in Zone 1, such as Somers Town in

Table 1: Individual scores of stressors from the top 3 SRS composite score wards. Scores generated by SRS

	Noise risk score	Air risk score	Thermal risk score	Light risk score
Poplar (Tower Hamlets)	0.4	0.9	0.6	1.0
Somers Town (Camden)	0.3	1.0	0.7	1.0
St George's (Southwark)	0.3	1.0	0.7	1.0

Camden (ie $0.4 > 0.3$). The thermal score for Poplar was also leaning towards the maximum threshold, albeit not the highest in all of London (where the maxima was recorded in Tachbrook ward at a value of 0.8). In Somers Town and St George's, the only biologically permissible score is the noise one at 0.3, not constituting a health threat on its own. At this resolution the SRS can begin to point to the health risks which could be associated with these areas based on the levels of pollutants. As it is air and noise which have the highest scores, these neighbourhoods could be at risk for metabolic-based disorders such as obesity due to both the light and air pollution levels.

From an urban regeneration perspective this generates two main insights. The first is work to decrease the levels of air and light pollution; this could be done through

improving the quality of roads, better traffic routes, more pedestrianisation, distributing street lighting away from residential areas, zoning schools and homes away from main roads, and creating incentives for businesses to turn down their lights during the night to further reduce light pollution. The second insight is around climate change; these areas could be vulnerable to becoming an urban heat island (UHI) as London's summers become hotter and more sustained.⁶¹

The second scenario is at a street scale, which can be used to identify specific streets or areas that pose the most health risk. Figure 1 shows streets in the Bloomsbury area of London near University College London (UCL), specifically focused on two squares: Gordon on the left and Tavistock on the right. The SRS clearly shows that

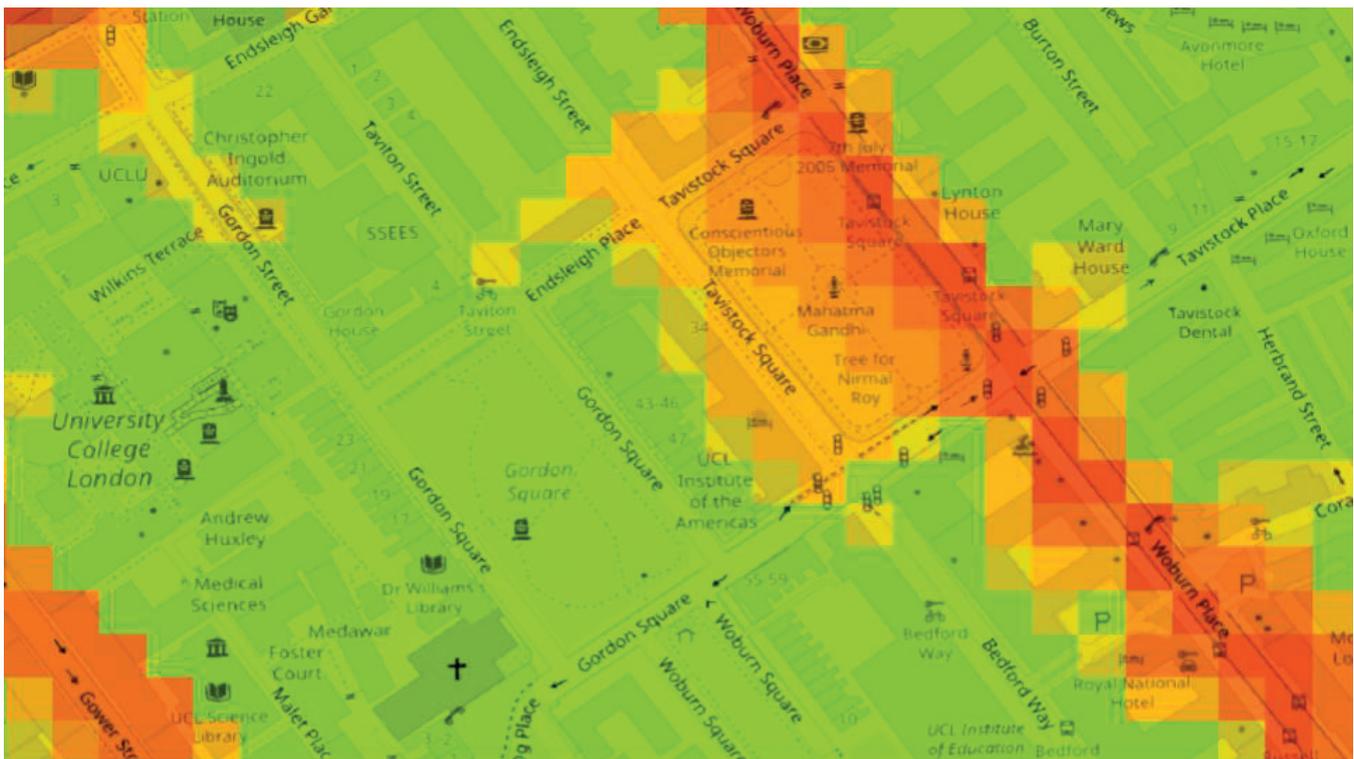


Figure 1: Bloomsbury (Gordon and Tavistock Squares). Colour range: green is a low (adequate for health); yellow/orange is a medium score (there is a risk to health); red is high score (dysregulation of HPA-Axis, high risk to health)

Source: SRS

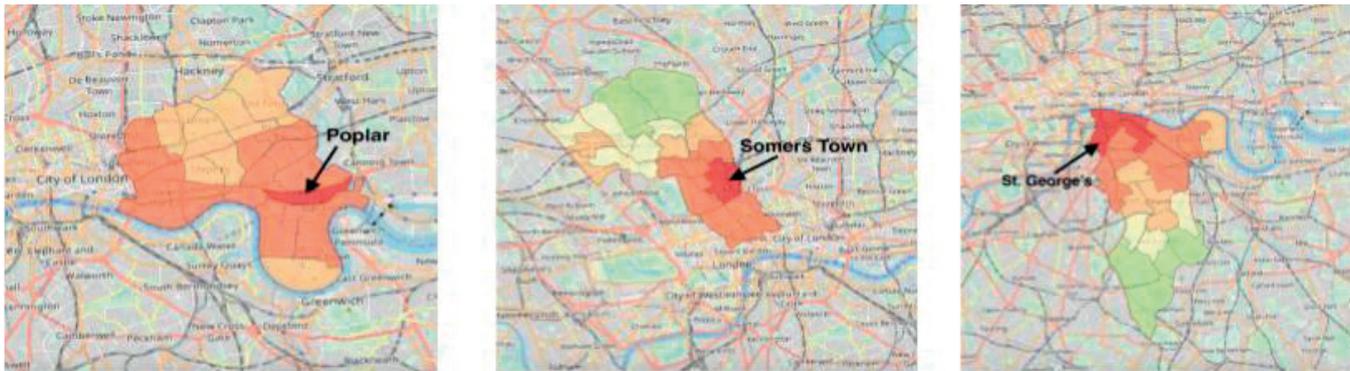


Figure 2: Composite scores for the boroughs of (left-right) Tower Hamlets, Camden, Southwark and their respective high-scoring wards highlighted

Source: SRS

Tavistock has significantly higher levels of pollutants, as illustrated by the red and orange colours. What this would mean from an urban regeneration perspective is a need to keep Gordon Square protected by maintaining its green spaces, low traffic flow and adjacent pedestrianised area. Secondly, it would focus attention on improving the streets around Tavistock Square. The SRS can facilitate decision making by highlighting which areas to improve and which to maintain. These squares are important to the life of students at UCL, ensuring they have healthy spaces to be outside and restore themselves, which can lead to positive health outcomes.

Finally, on a city scale, the SRS can look at a borough level to identify which wards have the highest composite scores and compare between wards and boroughs (see Figure 2). The insights that can be generated are in two parts: the first is macro-regeneration decisions on which wards of London need to be prioritised based on health risks; the second is about where urban resources such as hospitals and parks could be better allocated.

CONCLUSION

As urban regeneration and renewal practitioners engage in new urban psychology to improve both the efficacy

and the ethics of their interventions, this paper has made a case for neuroscience to be included in the conversation. Today, this dynamic field is pioneering new ideas and tools which are increasing the accessibility of its insights to urban policy, planning and practitioner communities and enabling it to become an applied science. The SRS has been created to allow urban regeneration practitioners to make more informed decisions in regeneration projects, by assessing and identifying areas that pose a serious risk to long-term human health. This will be increasingly important as climate change imposes more urban challenges and further stress on already degrading infrastructure.

References

1. Phan, T. X. and Malkani, R. G. (February 2019), 'Sleep and circadian rhythm disruption and stress intersect in Alzheimer's disease', *Neurobiology of Stress*, Vol. 10, No. 100133.
2. EU Commission (August 2016), 'Science for Environment Policy. In-Depth Report 13: Links between noise and air pollution and socioeconomic status', available at <http://dx.doi.org/10.2779/200217> (accessed 6th February, 2020).
3. Camargo, A., Artus, J. and Spiers, H. (2017), 'Neuroscience for Cities Playbook', Future Cities Catapult, available at <https://futurecities.catapult.org.uk/project/neuroscience-for-cities-a-playbook/> (accessed 6th February, 2020).
4. World Health Organisation (2019), 'Health impacts', available at <https://www.who.int/sustainable-development/cities/health-risks/about/en/> (accessed 6th February, 2020).

5. *Ibid.*, note 4.
6. London Mental Health (January 2014), 'The Invisible Costs of Mental Ill Health 2014', available at https://www.london.gov.uk/sites/default/files/gla_migrate_files_destination/Mental%20health%20report.pdf (accessed 6th February, 2020).
7. London's Child Obesity Taskforce (2019), 'Every Child a Healthy Weight. Ten Ambitions for London 2019', available at https://www.london.gov.uk/sites/default/files/every_child_a_healthy_weight.pdf (accessed 6th February, 2020).
8. Frank, A. P., De Souza Santos, S., Palmer, B. F. and Clegg, D. J. (October 2019), 'Determinants of body fat distribution in humans may provide insight about obesity-related health risks', *Journal of Lipid Research*, Vol. 60, No. 10, pp. 1410–1719.
9. Papadogeorgou, G., Kioumourtzoglou, M. A., Braun, D. and Zanobetti, A. (2019), 'Low Levels of Air Pollution and Health: Effect Estimates, Methodological Challenges, and Future Directions', *Current Environmental Health Reports*, Vol. 6, No. 3, p. 105–115.
10. Chepesiuk, R. (2009), 'Missing the dark: Health effects of light pollution', *Environmental Health Perspectives*, Vol. 117, No. 1.
11. Stansfeld, S., Haines, M. and Brown, B. (January–June 2000), 'Noise and health in the urban environment', *Reviews on Environmental Health*, Vol. 15, Nos. 1–2, pp. 43–82.
12. Heaviside, C., Macintyre, H. and Vardoulakis, S. (September 2017), 'The urban heat island: Implications for health in a changing environment', *Current Environmental Health Reports*, Vol. 4, No. 3, pp. 296–305.
13. O'Lenick, C. R., Wilhelmi, O. V., Michael, R., Hayden, M. H., Baniassadi, A., Wiedinmyer, C., Monaghan, A. J., Crank, P. J. and Sailor, D. J. (April 2019), 'Urban heat and air pollution: A framework for integrating population vulnerability and indoor exposure in health risk analyses', *Science of The Total Environment*, Vol. 660, pp. 715–723.
14. Wilbanks, T. J. and Fernandez, S. (eds) (2014), *Climate Change and Infrastructure, Urban Systems, and Vulnerabilities*, Island Press, Washington, DC.
15. Calma, J. (July 2019), 'During deadly heat wave, New York utility cut power to high-risk neighborhoods', *Grist*, available at <https://grist.org/article/during-deadly-heat-wave-new-york-utility-cut-power-to-high-risk-neighborhoods/> (accessed 6th February, 2020).
16. City of New York (n.d.), 'Environment & Health Data Portal', available at <http://a816-dohbsp.nyc.gov/IndicatorPublic/VisualizationData.aspx?id=2191,4466a0,100,Summarize> (accessed 6th February, 2020).
17. Paul, A., Alex, R., Jacob, J. R. and Yadav, B. (June 2019), 'Effects of heat stroke on surface ECG: A study on clinical outcomes', *Heart Asia*, Vol. 11, No. 2, e011221.
18. Walter, E. J. and Carraretto, M. (December 2016), 'The neurological and cognitive consequences of hyperthermia', *Critical Care*, Vol. 20, No. 1, p. 199.
19. London Resilience (2017), 'Severe Weather and Natural Hazards Response Framework', Gov.UK, available at https://www.london.gov.uk/sites/default/files/severe_weather_and_natural_hazards_framework_v1.0.pdf (accessed 6th February, 2020).
20. Abela, A., Hamilton, L., Hitchin, R., Lewry, A. and Pout, C. (June 2016), 'Study on Energy Use by Air-Conditioning: Final Report BRE Client Report for the Department of Energy & Climate Change, HPR218-1001 – June 2016', BRE, available at <https://www.bre.co.uk/filelibrary/pdf/projects/aircon-energy-use/StudyOnEnergyUseByAirConditioningFinalReport.pdf> (accessed 6th February, 2020).
21. *Ibid.*, note 6.
22. *Ibid.*, note 7.
23. Squire, L., Bloom, F., Spitzer, N., Lac, S., Ghosh, A. and Berg, D. (2008), *Fundamental Neuroscience*, 3rd edn, Academic Press, Cambridge, MA.
24. Williams, T. G. and Edwards, L. (2010), 'Chronic stress and the HPA axis', *The Standard*, Vol. 9, No. 2, pp. 1–2.
25. Gunnar, M. and Quevedo, K. (January 2007), 'The neurobiology of stress and development', *Annual Review of Psychology*, Vol. 58, pp. 145–173.
26. *Ibid.*, note 25.
27. *Ibid.*, note 24.
28. Thomson, E. M. (2019), 'Air Pollution, Stress, and Allostatic Load: Linking Systemic and Central Nervous System Impacts', *Journal of Alzheimer's Disease*, Vol. 69, pp. 597–614.
29. Wheaton, B. and Montazer, S. (2010), 'Stressors, Stress, and Distress', in Scheid, T. L. and Brown, T. N. (eds), *A Handbook for the Study of Mental Health*, Cambridge University Press, New York.
30. Marin, M-F, Lord, C., Andrews, J., Juster, R-P, Sindi, S., Arseneault-Lapierre, G. (November 2011), 'Chronic stress, cognitive functioning and mental health', *Neurobiology of Learning and Memory*, Vol. 96, No. 4, pp. 583–595.
31. McEwen, B. S. (1998), 'Stress, Adaptation, and Disease: Allostasis and Allostatic Load', in McCann, S. M., Lipton, J. M., Sternberg, E. M., Chrousos, G. P., Gold, P. W. and Smith, C. C. (eds), *Annals of the New York Academy of Sciences: Vol. 840. Molecular Aspects, Integrative Systems, and Clinical Advances*, New York Academy of Science, New York, pp. 33–44.
32. *Ibid.*, note 28.
33. Casey, J. A., Morello-Frosch, R., Mennitt, D. J., Frstrup, K., Ogburn, E. L. and James, P. (July 2017), 'Race/Ethnicity, Socioeconomic Status, Residential Segregation, and Spatial Variation in Noise Exposure in the Contiguous United States', *Environmental Health Perspectives*, Vol. 125, No. 7, 077017.
34. Garg, A. (June 2011), 'Pro-equity Effects of Ancillary Benefits of Climate Change Policies: A Case Study of Human Health Impacts of Outdoor Air Pollution in New Delhi', *World Development*, Vol. 39, No. 6, pp. 1002–1025.
35. Voelkel, J., Hellman, D., Sakuma, R. and Shandas,

- V. (March 2018), 'Assessing Vulnerability to Urban Heat: A Study of Disproportionate Heat Exposure and Access to Refuge by Socio-Demographic Status in Portland, Oregon', *International Journal of Environmental Research and Public Health*, Vol. 15, No. 4.
36. Evans, G. W. and Kim, P. (March 2013), 'Childhood poverty, chronic stress, self-regulation, and coping', *Child Development Perspectives*, Vol. 7, No. 1, pp. 43–48.
37. Tamashiro, K. L., Sakai, R. R., Shively, C. A., Karatsoreos, I. N. and Reagan, L. P. (November 2011), 'Chronic stress, metabolism, and metabolic syndrome', *Stress*, Vol. 14, No. 5, pp. 468–474.
38. Galea, S., Ahern, J., Nandi, A., Tracy, M., Beard, J. and Vlahov, D. (March 2007), 'Urban neighborhood poverty and the incidence of depression in a population-based cohort study', *Annals of Epidemiology*, Vol. 17, No. 3, pp. 171–179.
39. Camargo, A., Hossain, E., Aliko, S., Artus, J. and Dezecache, G. (2019), 'PTSD Prevalence in Impoverished Neighbourhoods & Climate Change', Centric Lab, London.
40. Schraufnagel, D. E., Balmes, J. R., Cowl, C. T., De Matteis, S., Jung, S. H., Mortimer, K., Perez-Padilla, R., Rice, M. B., Riojas-Rodriguez, H., Sood, A. and Thurston, G. D. (February 2019), 'Air Pollution and Noncommunicable Diseases: A Review by the Forum of International Respiratory Societies' Environmental Committee, Part 2: Air Pollution and Organ Systems', *Chest*, Vol. 155, No. 2, pp. 417–426.
41. Calderón-Garcidueñas, L., Azzarelli, B., Acuna, H., Garcia, R., Gambling, T. M., Osnaya, N., Monroy, S., Del Rosario Tizapantzi, M., Carson, J. L., Villarreal-Calderon, A. and Rewcastle, B. (April 2002), 'Air pollution and brain damage', *Toxicologic Pathology*, Vol. 30, No. 3, pp. 373–389.
42. *Ibid.*, note 40.
43. *Ibid.*, note 40.
44. Kumar, P., Ashawat, M. S., Pandit, V. and Sharma, D. K. (August 2019), 'Artificial Light Pollution at Night: A Risk for Normal Circadian Rhythm and Physiological Functions in Humans', *Current Environmental Engineering*, Vol. 6, No. 2, pp. 111–125.
45. Wyse, C. A., Selman, C., Page, M. M., Coogan, A. N. and Hazlerigg, D. G. (December 2011), 'Circadian desynchrony and metabolic dysfunction: Did light pollution make us fat?', *Medical Hypotheses*, Vol. 77, No. 6, pp. 1139–1144.
46. Evans, G. W. and English, K. (July 2002), 'The environment of poverty: Multiple stressor exposure, psychophysiological stress, and socioemotional adjustment', *Child Development*, Vol. 73, No. 4, pp. 1238–1248.
47. Parto, J. A., Evans, M. K. and Zonderman, A. B. (July 2011), 'Symptoms of posttraumatic stress disorder among urban residents', *The Journal of Nervous and Mental Disease*, Vol. 199, No. 7, p. 436.
48. Kodavanti, U. P. (December 2016), 'Stretching the stress boundary: Linking air pollution health effects to a neurohormonal stress response', *Biochimica et Biophysica Acta (BBA) – General Subjects*, Vol. 1860, No. 12, pp. 2880–2890.
49. Funk, M., Drew, N. and Knapp, M. (November 2012), 'Mental health, poverty and development', *Journal of Public Mental Health*, Vol. 11, No. 4, pp. 166–185.
50. European Environment Agency (2018), 'Unequal exposure and unequal impacts: Social vulnerability to air pollution, noise and extreme temperatures in Europe', available at <https://www.eea.europa.eu/publications/unequal-exposure-and-unequal-impacts/> (accessed 6th February, 2020).
51. Shenassa, E. D., Daskalakis, C., Liebhaber, A., Braubach, M. and Brown, M. (October 2007), 'Dampness and mold in the home and depression: An examination of mold-related illness and perceived control of one's home as possible depression pathways', *American Journal of Public Health*, Vol. 97, No. 10, pp. 1893–1899.
52. Aboitiz, F., Concha, M. L., González-Billault, C. and Mpodozis, J. (June 2018), 'From Ecology to Brain Development: Bridging Separate Evolutionary Paradigms', *Frontiers in Neuroscience*, Vol. 12, p. 447.
53. Aškić, L., Mimica, N., Šimić, G., Mimica, N., Huić, T. and Dajčić, T. (January 2016), "'Sea Hero Quest" A game to make scientific progress in understanding dementia', *Neurologia Croatica: Newsletter of the Association of Neurologists of Yugoslavia*, Vol. 65, Suppl. 2, p. 93.
54. Petrowski, K., Bastianon, C. D., Bühner, S. and Brähler, E. (February 2019), 'Air Quality and Chronic Stress: A Representative Study of Air Pollution (PM2.5, PM10) in Germany', *Journal of Occupational Environment and Medicine*, Vol. 61, No. 2, pp. 144–147.
55. London Datastore (2018), 'Noise Pollution in London', available at <https://data.london.gov.uk/dataset/noise-pollution-in-london> (accessed 6th February, 2020).
56. Earth Observation Group (2019), 'Version 1 VIIRS Day/Night Band Nighttime Lights', National Centers for Environmental Information, available at https://ngdc.noaa.gov/eog/viirs/download_dnb_composites.html (accessed 6th February, 2020).
57. Min, J.-Y. and Min, K.-B. (November 2018), 'Outdoor Artificial Nighttime Light and Use of Hypnotic Medications in Older Adults: A Population-Based Cohort Study', *Journal of Clinical Sleep Medicine*, Vol. 14, No. 11, pp. 1903–1910.
58. Greater London Authority (2005), 'Greater London Authority', *Age*, Vol. 16, No. 19, pp. 20–24.
59. *Ibid.*, note 30.
60. NHS Digital (n.d.), 'Mental health data hub', available at <https://digital.nhs.uk/data-and-information/data-tools-and-services/data-services/mental-health-data-hub> (accessed 6th February, 2020).
61. *Ibid.*, note 19.

Urban psychology and British cities: Do personality traits matter for resilience to recessions?

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Abstract There has been much recent interest in the ‘resilience’ of cities (and regions) to shocks of various kinds. Studies have found, for example, that cities (and regions) appear to have different degrees of resistance to and recoverability from economic shocks, such as major recessions.^{1,2,3} In this paper we explore whether and to what extent the clustered personality traits of a city’s population, as measured by the so-called ‘Big Five’ traits, might be relevant to explaining these differences. The paper utilises the personality scores of more than 400,000 UK residents across some 63 cities to examine how far variations in these scores help to account for differences in how those cities have reacted to major recessions. We find that for the three recessionary shocks in our sample period, the trait openness (to experience) has a strong significant relationship with city resilience. Cities with a higher degree of openness to experience turn out to be more resilient to UK-wide recessionary shocks. These results also hold when account is taken for the age and location of birth of a city’s residents. We also briefly discuss potential policy implications.

Keywords: *UK cities, resilience, recessions, personality traits, Big Five, regions, psychology*

INTRODUCTION

There has been much recent interest in the ‘resilience’ of cities (and regions) to shocks of various kinds. Studies have found, for example, that cities (and regions) appear to have different degrees of resistance to and recoverability from economic shocks, such as major recessions.^{4,5,6} Explaining these differences in ‘resilience’ across cities and regions has not proved straightforward, however, in that the factors that might be expected to play a key role — for example, a city’s pre-shock growth performance, its economic structure, the investment and innovation strategies of its firms, its local governance and policy arrangements, and so on — appear to have only a limited influence. In this paper we explore whether and to what extent the clustered personality traits of a city’s population, as measured by the so-called ‘Big Five’ traits, might also be relevant.

It is well known from psychological research that individuals vary in their

personal resilience to adverse events and circumstances, and that such resilience in turn is shaped by an individual’s personality traits as well as external conditions and the resources available to that individual. At the same time, it is also known that individual personality traits vary across geographic space, and that such variations also tend to be persistent over long period of time.^{7,8,9,10,11} Thus, an interesting question is how far and in what ways the ‘resilience personality profile’ of a city’s population influences the resilience of that city’s economy to adverse shocks. Some preliminary work suggests that such an influence may well exist.¹² And likewise, there is evidence that a city’s overall personality profile influences its long run growth¹³ or even the political orientation and voting behaviour of its population.¹⁴ All things being equal, it seems therefore that a city that, in the aggregate, comprises individuals who are open-minded,

optimistic, adaptable and confident is likely to be more resilient to a major economic disruption than a city whose population, on the whole, is less positive, open-minded, optimistic, adaptable and confident. That is, a city's economic resilience might possibly be attributed, in part, to the personality traits of its population, inasmuch as individual personality traits influence individual resilience.

To explore this issue, this paper utilises the personality scores, on the Big Five traits recognised in psychological research,^{15,16} of more than 400,000 UK residents across some 63 cities to examine how far variations in these scores across those cities help to account for differences in how those cities have reacted to major recessions. We find that for the three recessionary shocks in our sample period, and while controlling for a number of other possible determinants of city resilience, the trait openness (to experience) has a strong significant relationship with city resilience, both in terms of the variations in resistance to, and, in particular, recovery from, these shocks. Cities with a higher degree of openness to experience turn out to be more resilient to nationwide recessionary shocks. These results also hold when account is taken of both the age and location of birth of a city's residents.

Based on our empirical results, and the evolving literature on the relevance of geographical or urban psychology for various city and regional outcomes more generally, we also discuss potential policy consequences. The paper ends with a short discussion of the implications and limitations of our research. Overall, we conclude that the infusion of psychology into urban and regional studies might indeed enlarge our understanding of the resilience of places to economic shocks and thus how places differ in their adaption to changes over time.

THE ECONOMIC RESILIENCE OF CITIES: THE POTENTIAL ROLE OF PSYCHOLOGICAL FACTORS

Early uses of the notion of resilience date back to the 1970s, as part of the study of the stability and persistence of ecological systems in response to natural and human-induced shocks, and in psychopathology and developmental psychology studies, to help understand how individuals cope under adversity. Over the last two decades or so, both of these fields have directed renewed attention to the idea,^{17,18,19,20,21} but at the same time the concept has attracted widespread interest from several other disciplines, including management studies, organisational science, environmental studies, urban planning and economic geography. Even a new journal, *Resilience*, has been established. In the case of economic geography, the notion of resilience has been employed to explore how local economies — cities and regions — react to and recover from major shocks and disruptions, such as the closure of a major local employer, the loss of an entire local industry, the impact of recession, major shifts in economic policy and wider economic crises.

In exploring this latter issue, economic geographers have utilised several different definitions — or types — of resilience^{22,23,24} (see Table 1). The simplest is so-called 'bounce back' or engineering resilience, which focuses on how rapidly a city or regional economy returns to its pre-shock state or development or growth path following a shock. A second definition or type is so-called ecological or absorptive capacity resilience, in which resilience has to do with the size of the shock a city or regional economy can withstand or absorb before it is pushed to an alternative inferior state or development path. A third type, referred to as adaptive resilience, is concerned with the ability of a city or regional economy to adapt its economic structure, mode of

Table 1: Different conceptions of city economic resilience: From ‘bounce back’ to transformational reorganisation

Conception	Interpretation and features
Resilience as self-restorative ‘bounce back’ from shocks	Shock produces self-correcting and autopoietic processes that restore the economy back to its pre-shock state or path: focus is on speed and extent of ‘bounce back’; assumes shocks are merely transient events, with no permanent or remnant effects.
Resilience as ‘ability to absorb’ shocks	The size of a shock that an economy can absorb or tolerate without undergoing any significant change in structure or identity: focus is on stability of structure and functionality. If the shock exceeds the economy’s ‘absorptive capacity’ or ‘threshold’, it may not be able to return to its pre-shock state or path and may move to an alternative, typically less favourable, state or path.
Resilience as ‘adaptive development’ in response to, or anticipation of, shocks	Capacity of an economy to restructure, and reorientate its structure, function and identity in a positive direction so as to emerge from the shock on a favourable path. This may be its pre-shock path or involve ‘bounce forward’ to an alternative superior path.
Resilience as ‘transformational reorganisation’ into a new socio-economic governance system	Capacity of an economy to undergo widespread reorganisation and reorientation, driven and guided by extensive purposive and strategic policy intervention, into a different, more resilient and more sustainable mode of development.

Based on and extended from Martin (2018)²⁵

development and so on, in anticipation of or in response to a shock such that it emerges on an improved developmental or growth path. Some theorists propose a fourth type, so-called transformational resilience, which is meant to refer to a wholesale reconfiguration and reorganisation of an economy in response to a shock, into a new form based on a different, more resilient and sustainable growth model. Such transformation may require extensive policy intervention. While these different forms of resilience may appear conceptually distinct, in practice they may well overlap in certain respects.

Just as there are different conceptualisations of resilience, so different methods have been used to measure the notion empirically. Likewise, the empirical applications of the concept have varied, both in terms of different national contexts and the types of shock studied. In general, these studies point to some significant differences in resilience among cities and regions, both in relation to resistance to shocks (how deeply affected) and recoverability from them

(speed and extent of recovery to the pre-shock growth path). A key question, then, is why cities should vary in resilience: what determines a city’s relative resilience to shocks?

Various such determinants have been examined in the literature, including the role of economic structure (such as the degree of industrial specialisation or diversity), the skill base of the local labour force, the innovativeness of local firms, the local entrepreneurial culture, the size distribution of the local population of firms and the local economic governance and policy arrangement. Yet, while these and related factors have been found to play a role, they by no means account for all of the variation in resilience across different cities (and regions). In fact, analysis of resilience across UK cities suggests that other, historically persistent, region or city-specific factors seem to have played a more significant role.²⁶ The very persistence of the geographical pattern of spatial economic imbalance across the UK is suggestive that those factors may have to do, at least to some degree, with the characteristics of the populations in

different regions and cities, that is, with factors that influence individuals' outlook, aspiration and confidence, and hence their economic behaviour.

The notion that spatial economic differences are also driven by spatial differences in the behaviour of people is as such not new. In fact, dating back to Weber,²⁷ local culture and institutions are included among the drivers of regional economic performance. In the modern economic geography literature, this is reflected in the role that concepts such as culture, social capital and (informal) institutions play.^{28,29,30} Also, the literatures on notably the creative classes, happiness and urban growth,³¹ local interactions³² or even on the happiness or well-being of (people in) cities³³ focus at least to some extent on the 'psyche' of a place. But, typically — and crucially for the present paper — the analysis is conducted at an aggregate level and actual *individual* traits

or behaviours as such are not measured or included.

Much of modern economics has reduced individual 'behaviour' to a dichotomous categorisation as either 'rational' or 'not-rational' (of which 'satisficing' is one such example). Insofar as the individual or micro-level plays a role in the modern economics' understanding of economic geography, actual individual behaviours and traits are not analysed.³⁴ Recently, however, interest has been growing in the interaction of cognitive and emotional factors in shaping (economic) behaviour and in the role of 'herding' and 'imitation' as mechanisms affecting economic decision making (see, for example, the surveys by Baddeley^{35,36}). An individual's psychological disposition might be expected to exert an important influence on their social and economic behaviours, since it can affect their attitude to opportunity, risk and uncertainty.

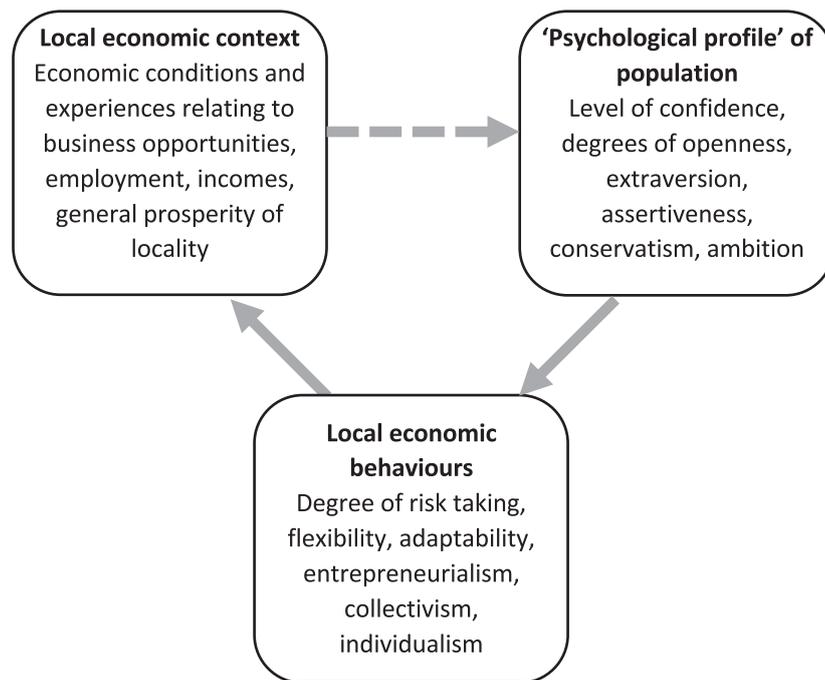


Figure 1: Local interactions between psychological characteristics, economic behaviours and economic conditions

Source: Authors

Moreover, attitude in turn may shape economic outcomes. An intriguing issue in this respect is whether and to what extent an individual's psychological characteristics are purely due to particular innate personal attributes or direct life experiences, or are also shaped — in part at least — by an individual's external environment, the contextual conditions and circumstances in which that individual works, lives and socialises. With the well-known *nature versus nurture* distinction in mind, we might then envisage a possible causal structure of the sort depicted in Figure 1.

At any moment in time, the population of a locality will have a 'psychological profile', that is, a particular pattern of psychological traits across its population that affect the ways in which residents think, feel and behave (eg in terms of confidence, assertiveness, openness, ambition, anxiety, innovativeness, etc.). Those traits may influence the economic decisions and behaviours of individuals, which may have an impact on the local economy, in terms of entrepreneurship, business formation, innovation, training, job search, attachment to jobs, and so on. In turn, the economic outcomes and conditions in the locality concerned may be expected to influence — either by reinforcing or changing — the outlook, aspirations and ambitions of the local population. This process is represented by the dotted arrow in Figure 1, because it signals that the local psychological profile of a population might be endogenous, which is a concern if the aim of the analysis, like the present one, is to establish that causality runs from the local psychological profile (via local behaviour) to the local economic context or outcomes. We will return to this issue in the discussion of our empirical results.

In effect then, the interactions between a locality's 'psychological profile' and its economic conditions may well be

self-reproducing or self-reinforcing. And history may also play a significant role.^{37,38,39} Particular forms of local economic development in earlier periods, involving particular types of industry, business structures, skills, labour processes and working conditions, may have given local workforces particular traits, dispositions and attitudes. These may linger on long after those industries and skills have disappeared or been superseded. In other words, local 'psychological profiles' may exhibit a surprising degree of 'path dependent lock-in'.⁴⁰ To summarise, there are grounds for expecting the personality profiles of a population to vary, at least to some degree, geographically, and for hypothesising that such differences — to the extent that they exist — can influence the economic performance and outcomes of different areas.

As is explained at length in Garretsen *et al.*,⁴¹ within the field of psychology, research into the relationship between geography and personality is far from new and dates back to, for instance, Adorno, Frenkel-Brunswick, Levinson and Sanford⁴² or Lewin.⁴³ Much of that early work focused on vague conceptualisation of personality that failed to show solid empirical foundations. Since the 1990s, however, an empirically based framework for conceptualising personality has emerged that is widely accepted by scholars: the so-called Big Five personality dimensions. These dimensions spell the acronym OCEAN: openness, conscientiousness, extraversion, agreeableness and neuroticism. The Big Five dimensions with the items that correspond to each are listed in the Appendix.⁴⁴

Increasingly, research on geographical personality differences has started to focus the *regional* variation as opposed to (only) cross-national differences. In a seminal paper,⁴⁵ Rentfrow, Gosling and Potter used data from over half a million

US residents to examine state-wide differences in personality and show how these regional differences are associated with a host of socio-economic indicators and, crucially, with the regional variation in these indicators. Based on regional Big Five scores, Rentfrow, Jokela and Lamb⁴⁶ analysed regional personality differences across England, Wales and Scotland. The results once again revealed regional variations in personality differences to be strongly associated or correlated with regional variations in socio-economic outcome variables.

A key finding that emerges from this new 'geographical psychology' literature is that regional personality scores can explain a significant degree of the geographical variation in economic prosperity. Results from studies in the US, Great Britain and Germany suggest, for instance, that regions with high levels of openness have more robust regional economies compared to areas where openness is lower.^{47,48} One key aspect of this association concerns the link between openness and innovation. Specifically, Obschonka and colleagues⁴⁹ have found that regions with high levels of openness foster an 'entrepreneurial spirit', and that where there are disproportionately large numbers of entrepreneurs, there are also high rates of the creation of new jobs and firms, which in turn help to establish prosperous and resilient local economies. In a related study for the UK regions, Lee⁵⁰ finds a positive impact of conscientiousness on innovation. Given that a person's psychological profile and personality traits are known to influence their resilience to and ability to cope with personal shocks, disruptions and traumas, we might then hypothesise that a city's 'psychological profile' might influence its aggregate resilience to economic shocks and perturbations, such as major recessions.

Garretsen *et al.*⁵¹ also discuss in more detail why personality traits might be

regionally clustered to begin with. The main mechanisms involved are selective migration over time (people prefer to live close to 'like-minded' people), physical geography and long-standing economic or social conditions that shape personality traits throughout history (as Figure 1 suggests). Garretsen *et al.*⁵² also find that the regional variations in the Big Five dimensions explain a considerable part of the variation in economic growth across a sample of 63 UK cities (PUA level). Using the same data but now applied to the UK local authority district (LAD) level, Garretsen *et al.*⁵³ also show how the Brexit vote in 2016 can be linked to local variations in the Big Five scores; in particular, the trait openness to experience is especially relevant. Localities with a lower score on openness to experience were, *ceteris paribus*, much more likely to vote Leave. For our present purposes, the main observation to make is that to the best of our knowledge no study has yet tried to link locally clustered Big Five scores to local variations in economic resilience. It is precisely this task that is the focus of the remainder of the paper.

DATA AND BASIC MODEL⁵⁴

To investigate the potential relevance of city personality differences for city economic resilience, we use two UK data sets. First, data on the economic performance of cities comes from Martin, Gardiner and Tyler⁵⁵ (see also Martin, Sunley, Tyler and Gardiner^{56,57}). This data comprises annual estimates of workplace employment and output (Gross Value Added) across 46 sectors for 63 primary urban areas (PUAs) from 1981 to 2011. PUAs are defined as 'built-up' areas based on contiguous local authority districts (LADs) around cities. We provide an overview of the 63 PUAs and their constitutive LADs in Table 2 in the Appendix. A full overview of the data

construction process can be found in Martin *et al.*⁵⁸

The scores on the Big Five personality measures come from our second data set.⁵⁹ Based on a survey of more than 400,000 residents across Great Britain conducted in 2009, this data set provides information on personality attributes of individual survey participants across the 380 LADs in Great Britain. Answers on 44 Likert-type short statements were recorded for each participant and a principal components analysis was performed to extract the five underlying factors, namely extraversion, agreeableness, conscientiousness, neuroticism and openness⁶⁰ (for the full list of Big Five-related factors see Table 1 in the Appendix). Scores were then aggregated at the PUA level by averaging individual scores weighted by the number of survey participants in each of the LADs that make up the PUA. As we show in detail in Garretsen *et al.*,⁶¹ there is considerable cross-PUA variation for each of the Big Five scores.

To test for the relevance of the Big Five personality scores for city economic resilience, we estimate an OLS model where the dependent variable, regional resilience, is regressed against the regional Big Five scores using a standard set of control variables for each PUA i ($i=1, \dots, 63$). As a first pass, these controls capture most of the standard explanations that have been brought forward to explain regional economic divergence, keeping also our discussion on regional resilience (in the UK) in mind:

$$D_i = b_0 + b_1 Psych_i + \sum_j b_j X_{i,j} + \epsilon_i \quad (1)$$

In our baseline model (1), D_i represents our measures of regional resilience, see below, for each of the 63 PUAs. $Psych_i$ represents the Big Five score(s) for each PUA. Following Lee,⁶² each of the five personality variables is regressed separately

against the dependent variables since we want to allow for the possibility in an explorative analysis that each of the Big Five measures could have an impact on the resilience variable. The coefficient b_1 is thus the main focus of interest; b_0 is the constant; b_j is the coefficient for the control variable X_{ij} , and ϵ_i is the error term. The vector X_{ij} , for each PUA i gives the set of control variables ($j= 2, \dots, 7$) that will be used throughout our estimations (see Garretsen *et al.*⁶³ for an extensive motivation of these controls). These are: 1) the size of a city; 2) a dummy coding whether a PUA is landlocked; 3) kilometric distance to London; 4) a dummy for New Town that codes cities and towns created after the New Towns Act 1946; 5) a Krugman economic specialisation index; 6) the size of the city in terms of employment; and 7) the proportion of young people in the population.

Finally, and crucially, with respect to our dependent variable, city economic resilience, we follow the methodology used in Martin *et al.*⁶⁴ and calculate two indices that measure each PUAs resistance and recoverability to a UK-wide recession:

$$Resistance_i = \frac{(\Delta E_i^{Contraction}) - (\Delta E_i^{Contraction})^{Expected}}{|(\Delta E_i^{Contraction})|}$$

$$Recovery_i = \frac{(\Delta E_i^{Recovery}) - (\Delta E_i^{Recovery})^{Expected}}{|(\Delta E_i^{Recovery})|}$$

where $\Delta E_i^{Contraction}$ is a PUA i 's observed change in employment during a recession until the trough or lowest point in terms of change in employment and $(\Delta E_i^{Contraction})^{Expected}$ is the expected decrease assuming the city i had followed the UK national trend. Similar measures apply to the recovery phase which is the phase from the time of the trough until the beginning of the next recession, and here too 'expected' refers to the UK employment path during such a period.

For both measures a *positive* value signifies that a city is *more resistant* or *recovers faster* from an UK-wide recession as compared to the UK average.

EMPIRICAL FINDINGS: BIG FIVE AND CITY RESILIENCE

Our estimation results thus take a first and preliminary look at the potential significance of the Big Five personality traits for the regional resistance and recovery to economic shocks. More particularly, this enquiry ties in with the burgeoning literature on the resilience of regions (or nations) to shocks. These shocks can vary from natural disasters to wars to economic recessions, and our focus here is on recessionary shocks. Research for the UK regions has shown that regions differ considerably in how they cope with the impact of UK-wide recessions.^{65,66} The notion of resilience is a much debated one⁶⁷ and so is the empirical operationalisation of the concept and its determinants. Still, the basic question is how cities adapt to and recover from shocks. Here, we focus on the case of three official UK recessions that are (partly) covered by our sample period, and we focus for the sake of simplicity on a straightforward measure of city resilience where we distinguish between the downswing and upswing phases of each recession.

The scores per recession for the resistance and recovery phase are calculated over three recessions using annual data. The first recession took place from 1979(4)–83(1) (ie last quarter of 1979 to the first of 1983). The second recession spanned 1990(2)–2(4), while the 2008 recession's end of recovery date is not clear yet. Our economic data set runs from 1981 to 2011, which allows us to partially capture the first and third recession (1981–2 and 2008–10, respectively) and to fully capture the resistance and recovery phase of the second recession, that is the

early 1990s downturn. The results for each PUA for both resilience measures for all three recessions are presented in Figures 2, 3 and 4.

To get a better understanding of the relationship between the resistance and recovery measures, we averaged each PUA score for the three recessionary periods. The variables resistance and recovery turn out to be positively and significantly correlated. The scatterplot in Figure 5 presents this relationship and allows for a classification of the 63 PUAs among four categories.⁶⁸ Cities on the upper right quadrant, such as Milton Keynes or Cambridge, are those that are both more resistant to and recover relatively fast from shocks. The lower right quadrant shows cities that recover faster than the UK average but are less resistant. The upper left quadrant shows those cities that are relatively resistant but recover less rapidly than the UK. Finally, the lower left quadrant includes the cities that perform worse than the UK average both in terms of resistance to and recovery from recessions.

Against the background of Figure 5, we now look more specifically at the relationship between resilience and the Big Five traits. In doing so, we estimate our basic model for the 1990–2 recession and 1992–2007 recovery only because this is the recession that we can fully identify given our sample period. Using the same set of control variables as before, we find that the trait openness (to experience) is positively correlated with both resistance and recovery as seen in Table 2. Only the effect of openness is economically significant. A one standard deviation increase of openness would imply an increase of a city's resistance score by 0.33, which covers more than half of the difference between the highly resistant New Towns and the rest of the UK. The effect on recovery is also significant but less pronounced. The only other highly significant variable is that of *New Town* (positive) and *distance to London*

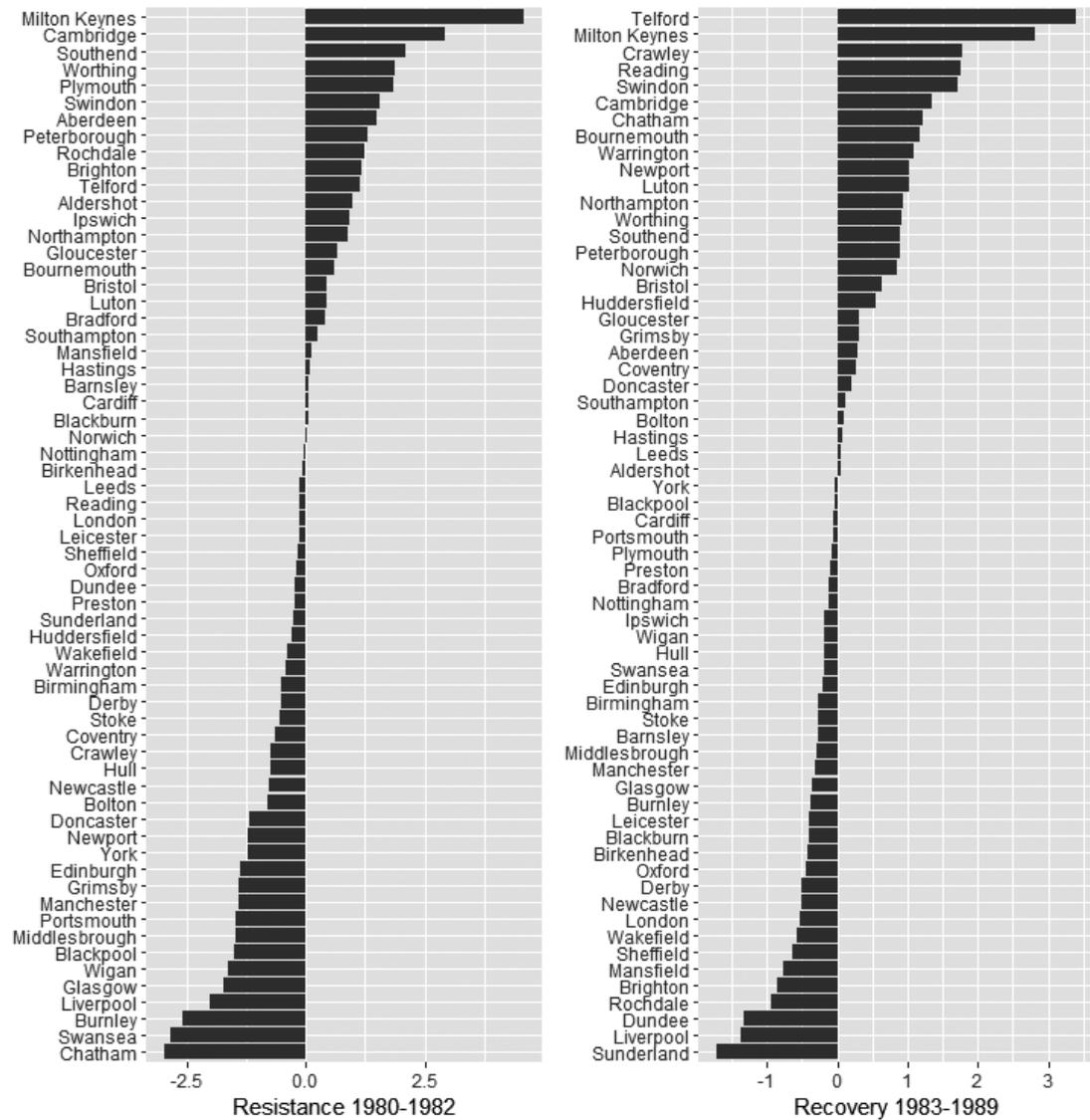


Figure 2: Resistance and recovery 1980–9 (calculated using indices summarised above)

Source: Authors

with the latter changing signs between the two equations.

The fact that openness is relevant when it comes to resilience to shocks, in this case UK-wide recessions, is not that much of a surprise, since openness is associated with how well people deal with a change in their circumstances. This idea as to the relevance of openness (to experience) being the relevant Big Five variable when it comes to understanding

city variations in resilience to national economic recessions resonates with related findings. Socio-economic well-being in the UK is associated with higher region-level openness and extraversion.⁶⁹ In addition, results from studies in the US, UK and Germany suggest that regions with high levels of openness (and low levels of neuroticism) are more resilient to shocks compared to areas where openness is lower.^{70–72} And there

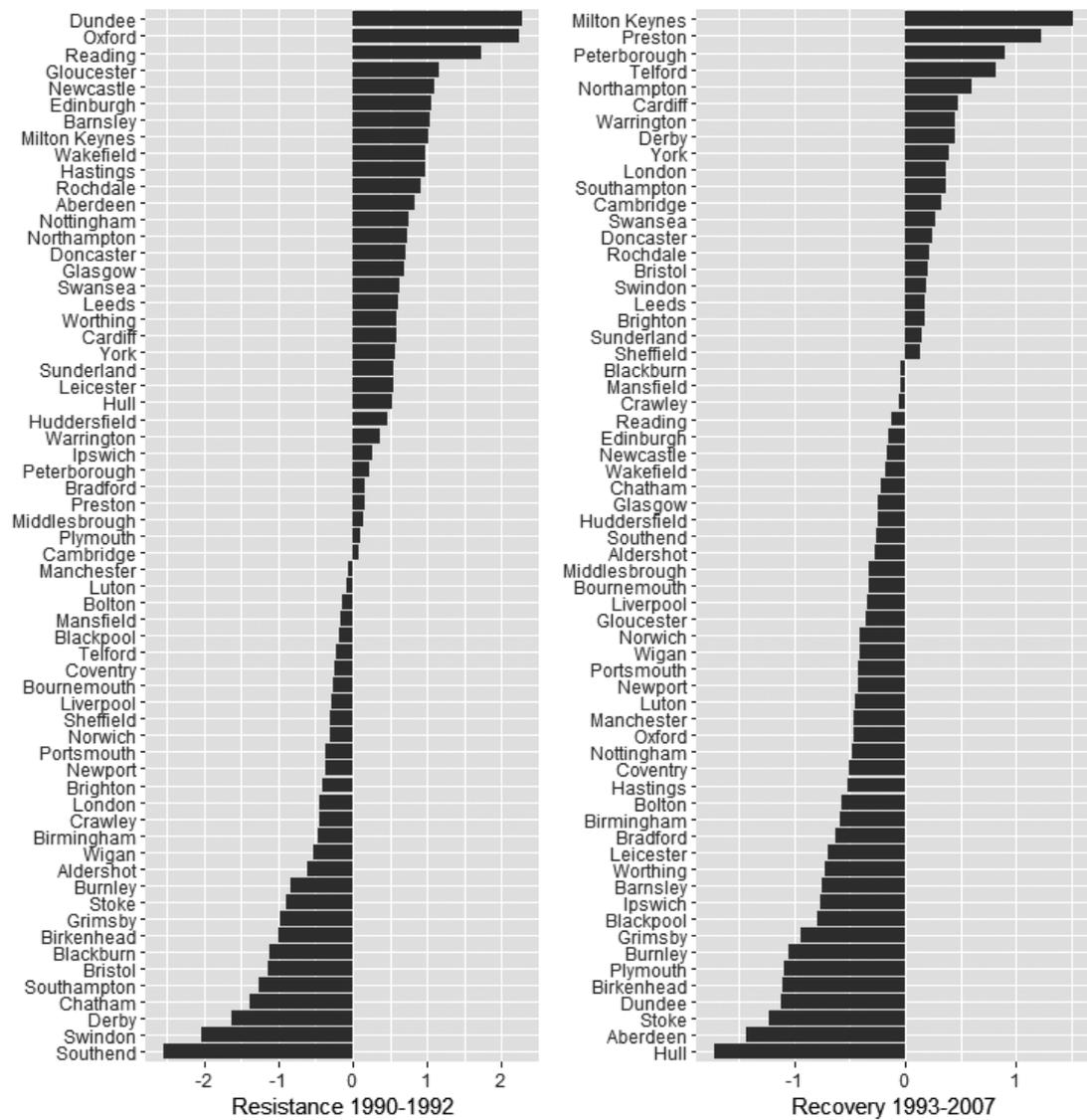


Figure 3: Indices of resistance and recovery 1990–2007 (calculated using indices summarised above)

Source: Authors

is also our own finding in relation to the ‘shock’ of the Brexit referendum that higher regional scores on the personality trait openness (to experience) go along with a stronger regional preference not to leave the EU.

As to the mechanisms or channels via which regions with on average higher scores on openness might be more resilient to UK recessions, the literature discussed previously in the paper would clearly suggest that since more

openness is associated with a stronger local entrepreneurial culture and also with a more innovative local economy, that individuals in regions with a higher average openness score envisage a recession less or not only as a threat but also as an opportunity. More generally, in those regions a sudden change in economic circumstances, eg a recession, is probably relatively more easily absorbed. In such a context, economic changes and the creation and destruction of jobs and firms are seen

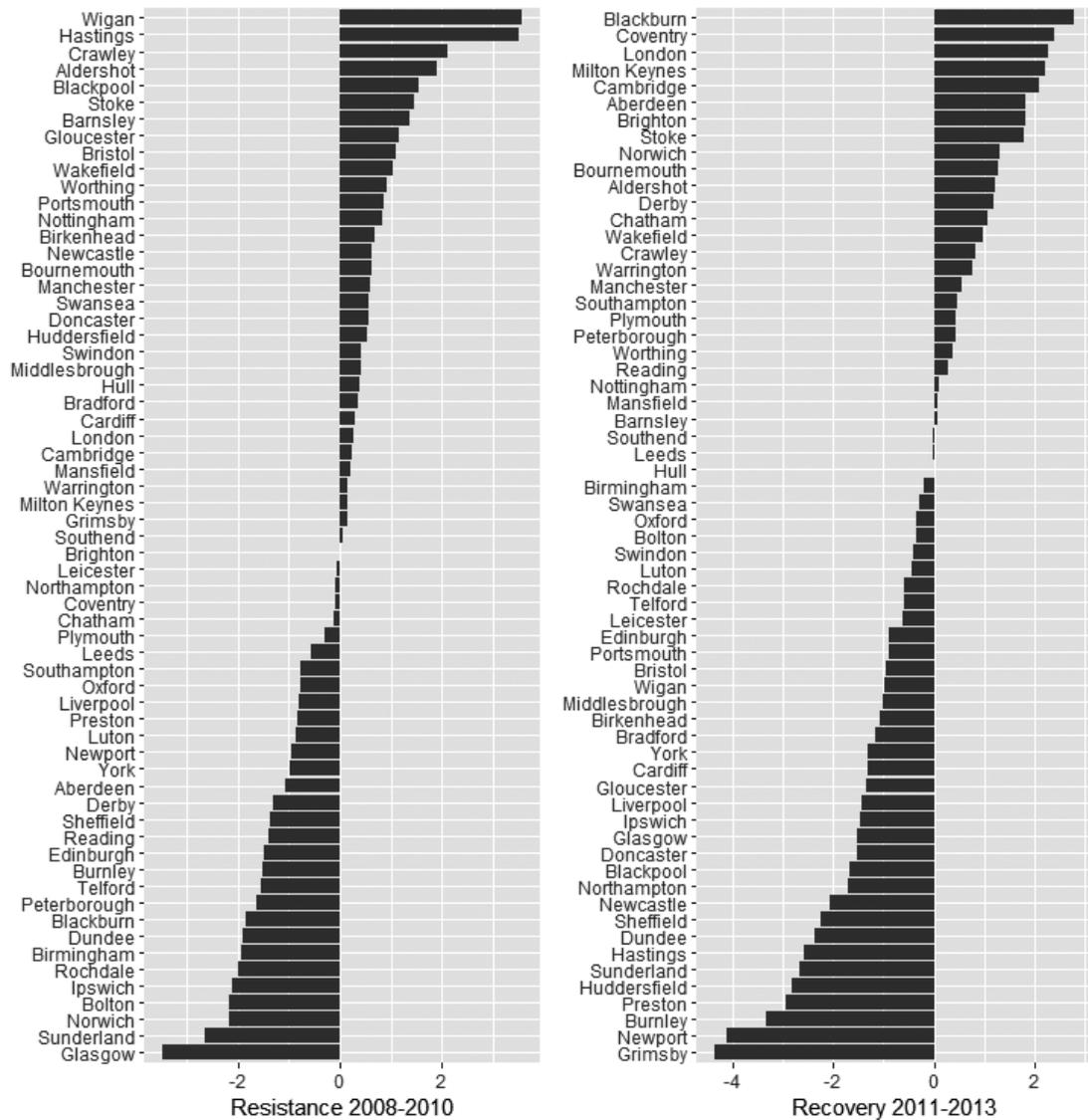


Figure 4: Resistance and recovery 2008–13 (calculated using indices summarised above)

Source: Authors

as being part of the way the local economy operates which may dampen the impact of the national recession on the local economy. To unravel the actual mechanism, more fine-grained data would be needed that would allow the analysis of the reaction of individual agents to economic recessions, and to connect these reactions to their own personality traits and that of the average trait profile of the region. We have to leave this topic to future research.

Potentially, as suggested earlier, there is the issue of endogeneity in the relationship between Big Five personality traits and economic resilience. In the case of nationwide recessions, we are a priori less worried that this a major issue. First, as other research has shown, local personality traits are not immutable (see below), but they do have a surprising degree of persistence over time: once formed, in part, by local economic-cultural-political

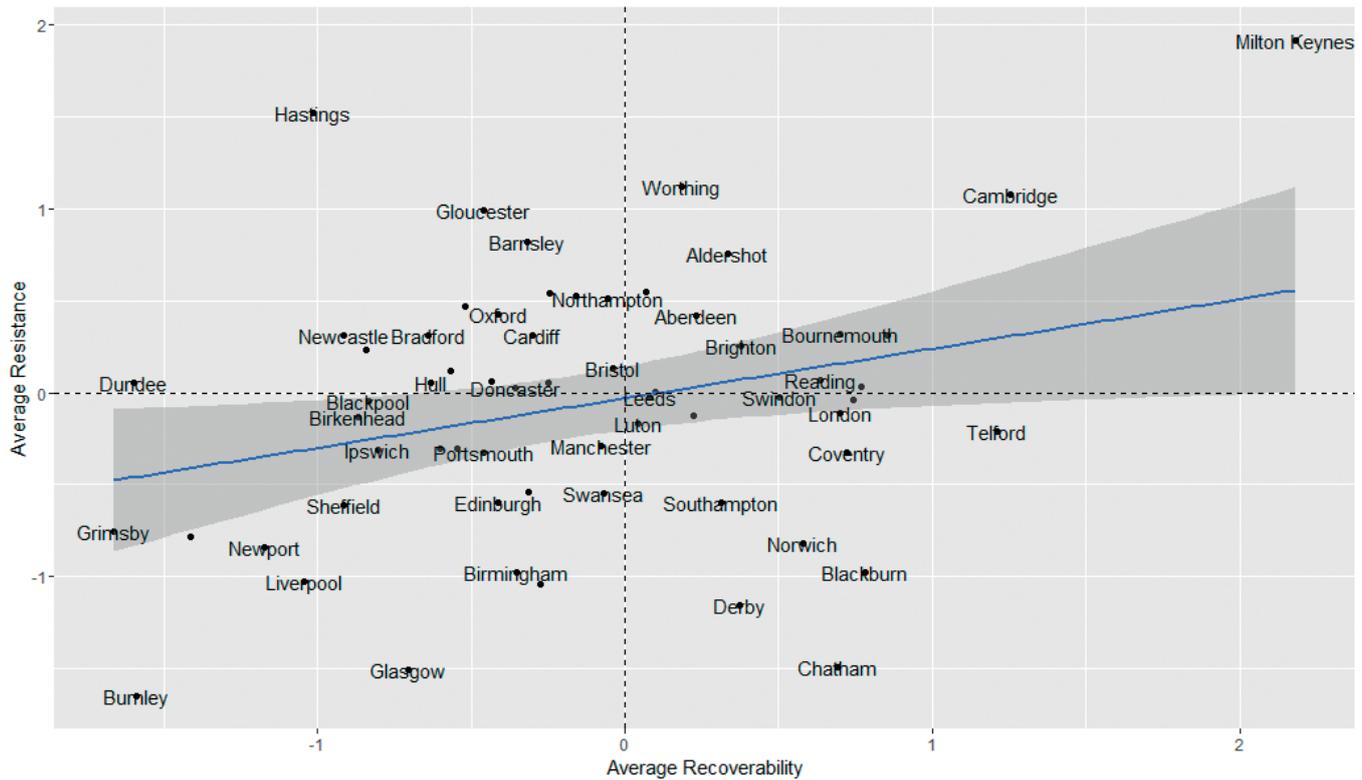


Figure 5: Resistance and recoverability by city across three UK recessions (deviations from national average)

Source: Authors

Table 2: Regional resilience and resistance and the Big Five

Variables	(1) Resistance	(2) Recovery
Openness	6.013* (3.114)	3.569** (1.424)
New Town	0.579** (0.285)	1.125*** (0.172)
Landlocked	0.0657 (0.209)	0.160 (0.129)
Distance to London (logs)	0.265** (0.118)	-0.120** (0.0513)
Krugman Spec Index	0.249 (1.508)	2.409*** (0.889)
Size (log)	-0.161 (0.165)	-0.0705 (0.0942)
Young Population	2.654 (2.673)	-1.080 (1.572)
Constant	-24.11** (10.64)	-11.05** (4.685)
Observations	63	63
Adjusted R-squared	0.181	0.310

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

conditions they can linger on for considerable periods of time long after those earlier formative conditions and circumstances have changed and disappeared.^{73,74} Second, at the same time, although in many parts of Britain local industrial structures, job structures and skill profiles have changed through the years, the geographical pattern of relative economic prosperity has not actually changed significantly. This persistence in the pattern of local relative prosperity might help explain the persistence of local personality traits and profiles. Third, given that major recessions are, to large extent, national events, affecting the economy as a whole, they can be regarded as exogenous to individual cities and their inhabitants. Given these considerations, it is not clear as to how the 1990–2 recession as such could have been ‘caused’ by the openness

variable. Still, one could argue that in cities that were hit harder by the recession in the early 1990s experienced a brain drain that resulted in open residents moving away to cities where there were more opportunities, thereby reducing present-day levels of openness. To test for this selective migration hypothesis, we looked at sub-samples where we distinguished between locals (people born in the city where they now live) and non-locals (people born in a city other than where they lived when they completed the survey). Results show that non-locals did *not* sort into cities in a way that would support reverse causality. That is to say, people with relatively higher (lower) scores on openness did not self-select into cities that we were hit less (harder) by the recession⁷⁵ Similarly, we also checked for differences between *age cohorts*. Since the formative period in which an individual's personality traits are formed is approximately before the age of 25–30, we could check whether the personality traits of respondents to the Big Five survey in 2009 were already 'formed' (ie persons more than 25 years old) when the recession hit in 1990. For those respondents it is unlikely that the 1990–2 recession formed their personality. Restricting our sample to these older age cohorts in this way did not change our conclusions.

CONCLUSIONS

All in all, these first and explorative outcomes as to the potential relevance of the (locally clustered) Big Five personality traits to understand city variations in economic resilience offer promising first results that justify more research on the relationship between geographical psychology and regional development. The trait that one probably expects to be most relevant, openness (to experience), clearly has some significant bearing on city resilience for the case of the local impact of British national recessions.

At the same time, much more research is needed to find out how robust these initial findings are, and also if it is indeed (only) the trait of openness that matters for resilience. For the present paper, we take the estimation results as reported in this section as sufficient evidence that clustered Big Five personality traits do appear to be associated with the resilience of cities (and regions) to economic shocks.

The findings suggest that future work on local (city, regional) resilience to economic shocks, such as recessions, could benefit from an explicit consideration of psychological factors, and the implications these can have for the economic behaviours and actions of workers, entrepreneurs and policymakers alike. When it comes to possible policy implications of psychological resilience, and as we have acknowledged (recall Figure 1), personality traits are not fixed and immutable, but can change over time. The survey by Almlund, Duckworth, Heckman and Kautz⁷⁶ illustrates, for instance, that educational and parental investment at a young age can have a bearing on the formation of individual personality traits. Their findings suggest that investment in the development of personality skills has a relatively high pay-off. An implication could be that urban or regional social policies that support such investments might over time have a positive impact on a location's resilience to economic shocks. This possible policy implication certainly warrants further research.

In this paper, we have assumed the endogeneity of personality traits not to be a sufficiently serious issue as to undermine our findings on the importance of openness for resilience; and, indeed, in another study in which an explicit allowance was made for such endogeneity, personality traits were still found to be of importance in accounting for city growth patterns.⁷⁷ Nevertheless, as illustrated in Figure 1, how and when, and to what extent, significant

feedbacks operate between a locality's personality or psychological 'profile' and its economic performance is itself an intriguing research issue — on three fronts: for understanding the localised clustering of personality traits, understanding the impact of such geographical clustering on local differences in economic development and dynamism, and thus for the design of potential policy interventions.

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APPENDIX

Table A1: The Big Five personality domains and the Big Five inventory (BFI) Items that load on them.

Big Five personality domain	BFI Item
Openness	<i>Is original, comes up with new ideas</i>
	<i>Is curious about many different things</i>
	<i>Is ingenious, a deep thinker</i>
	<i>Has an active imagination</i>
	<i>Is inventive</i>
	<i>Values artistic, aesthetic experiences</i>
	<i>Likes to reflect, play with ideas</i>
	<i>Is sophisticated in art, music, or literature</i>
	<i>Prefers work that is routine (r)</i>
	<i>Has few artistic interests (r)</i>
Conscientiousness	<i>Does a thorough job</i>
	<i>Is a reliable worker</i>
	<i>Perseveres until the task is finished</i>
	<i>Does things efficiently</i>
	<i>Makes plans and follows through with them</i>
	<i>Can be somewhat careless (r)</i>
	<i>Tends to be disorganised (r)</i>
	<i>Tends to be lazy (r)</i>
	<i>Is easily distracted (r)</i>
	<i>Is talkative</i>
Extraversion	<i>Is full of energy</i>
	<i>Generates a lot of enthusiasm</i>
	<i>Has an assertive personality</i>
	<i>Is outgoing, sociable</i>
	<i>Is reserved (r)</i>
	<i>Tends to be quiet (r)</i>
	<i>Is sometimes shy, inhibited (r)</i>
	<i>Is helpful and unselfish with others</i>
	<i>Has a forgiving nature</i>
	<i>Is generally trusting</i>
Agreeableness	<i>Is considerate and kind to almost everyone</i>
	<i>Likes to cooperate with others</i>
	<i>Tends to find fault with others (r)</i>
	<i>Starts quarrels with others (r)</i>
	<i>Can be cold and aloof (r)</i>
	<i>Is sometimes rude to others (r)</i>
	<i>Is depressed, blue</i>
	<i>Can be tense</i>
	<i>Worries a lot</i>
	<i>Can be moody</i>
Neuroticism	<i>Gets nervous easily</i>
	<i>Is relaxed, handles stress well (r)</i>
	<i>Is emotionally stable, not easily upset (r)</i>
	<i>Remains calm in tense situations (r)</i>

Note: The stem for each BFI item is 'I see myself as someone who ...'. The source of the BFI items is John and Srivastava⁷⁸ (r) = reverse keyed item.

Table A2: Primary urban areas (PUA) and constituting local district authorities (LAD)

Primary urban area	Local district authorities
Aberdeen	Aberdeen City
Aldershot	Rushmoor
Barnsley	Barnsley
Birkenhead	Wirral
Birmingham	Dudley, Sandwell, Walsall, Birmingham, Wolverhampton, Solihull
Blackburn	Blackburn with Darwen
Blackpool	Blackpool, Wyre, Fylde
Bolton	Bolton
Bournemouth	Poole, Bournemouth, Christchurch
Bradford	Bradford
Brighton	Brighton and Hove
Bristol	Adur
Burnley	South Gloucestershire, City of Bristol
Cambridge	Burnley, Pendle
Cardiff	Cambridge
Chatham	Cardiff
Coventry	Medway
Crawley	Coventry
Derby	Crawley, Reigate and Banstead
Doncaster	Derby
Dundee	Doncaster
Edinburgh	Dundee City
Glasgow	City of Edinburgh
Gloucester	West Dunbartonshire, Glasgow City, East Dunbartonshire, Renfrewshire, East Renfrewshire
Grimsby	Gloucester
Hastings	North East Lincolnshire
Huddersfield	Hastings
Hull	Kirklees
Ipswich	Kingston upon Hull, City of
Leeds	Ipswich
Leicester	Leeds
Liverpool	Oadby and Wigston, Blaby, Leicester
London	St Helens, Liverpool, Knowsley
Luton	Brent, Westminster, Southwark, Camden, Hillingdon, Lewisham, Dacorum, Harrow, Bromley, Tower Hamlets, Enfield, Waltham Forest, Havering, Wandsworth, Ealing, Haringey, Kingston upon Thames, Hackney, Barnet, Hammersmith and Fulham, Barking and Dagenham, Sutton, Broxbourne, Merton, Bexley, Newham, Croydon, Lambeth, Islington, City of London, Hounslow, Redbridge, Gravesham, Greenwich, Three Rivers, Kensington and Chelsea, Epping Forest, Richmond upon Thames
Manchester	Luton
Mansfield	Salford, Trafford, Bury, Manchester, Stockport, Tameside, Oldham
Middlesbrough	Mansfield, Ashfield
Milton Keynes	Stockton-on-Tees, Redcar and Cleveland, Middlesbrough
Newcastle	Milton Keynes
Newport	South Tyneside, Gateshead, Newcastle upon Tyne, North Tyneside
Northampton	Newport
Norwich	Northampton
Nottingham	Broadland, Norwich
Oxford	Broxtowe, Gedling, Nottingham, Erewash
Peterborough	Oxford
Plymouth	Peterborough
Portsmouth	Plymouth
Preston	Havant, Fareham, Portsmouth, Gosport
Reading	South Ribble, Chorley, Preston
Rochdale	Bracknell Forest, Wokingham, Reading
Sheffield	Rochdale
Southampton	Rotherham, Sheffield
Southend	Southampton, Eastleigh
Stoke	Southend-on-Sea, Castle Point, Rochford
Sunderland	Stoke-on-Trent, Newcastle-under-Lyme
Swansea	Sunderland
Swindon	Swansea
Telford	Swindon
Wakefield	Telford and Wrekin
Warrington	Wakefield
Wigan	Warrington
Worthing	Wigan
York	Worthing
	York

Notes and References

1. Martin, R. L. (2012), 'Regional economic resilience, hysteresis and recessionary shocks', *Journal of Economic Geography*, Vol. 12, pp. 1–32.
2. Martin, R. L. and Sunley, P. (2015), 'On the notion of regional economic resilience: Conceptualization and explanation', *Journal of Economic Geography*, Vol. 15, pp. 1–42.
3. Martin, R. L. and Gardiner, B. (2019), 'The Resilience of Cities to Economic Shocks: A Tale of Four Recessions, and the Challenge of Brexit', *Papers in Regional Science*, Vol. 98, No. 4, pp. 1801–1832.
4. *Ibid.*, note 1.
5. *Ibid.*, note 2.
6. *Ibid.*, note 3.
7. Allik, J. and McCrae, R. R. (2004), 'Toward a geography of personality traits: Patterns of profiles across 36 cultures', *Journal of Cross-Cultural Psychology*, Vol. 35, No. 1, pp. 13–28.
8. Schmitt, D. P., Allik, J. A., McCrae, R. R. and Benet-Martínez, V. (2007), 'The geographic distribution of Big Five personality traits: Patterns and profiles of human self-description across 56 nations', *Journal of Cross-Cultural Psychology*, Vol. 38, No. 2, pp. 173–212.
9. Rentfrow, P. J., Gosling, S. D. and Potter, J. (2008), 'A theory of the emergence, persistence, and expression of geographic variation in psychological characteristics', *Perspectives on Psychological Science*, Vol. 3, No. 5, pp. 339–369.
10. Cobb-Clark, D. A. and Schurer, S. (2012), 'The stability of big-five personality traits', *Economic Letters*, Vol. 115, No. 1, pp. 11–15.
11. Rentfrow, P. J. (2013), 'Geographical Differences in Personality', in Rentfrow, P. J. (ed.), *Geographical Psychology: Exploring the Interaction of Environment and Behavior*, American Psychological Association, Washington, DC, pp. 115–137.
12. Obschonka, M., Stuetzer, M., Audretsch, D. B., Rentfrow, P. J., Potter, J. and Gosling, S. D. (2016), 'Macro-psychological factors predict regional economic resilience during a major economic crisis', *Social Psychological and Personality Science*, Vol. 7, No. 2, pp. 95–104.
13. Garretsen, H., Stoker, J. I., Soudis, D., Martin, R. L. and Rentfrow, J. (2019), 'The Relevance of Personality Traits for Economic Geography: Making Space for Psychological Factors', *Journal of Economic Geography*, Vol. 19, No. 3, pp. 541–565.
14. Garretsen, H., Stoker, J. I., Soudis, D., Martin, R. L. and Rentfrow, J. (2018), 'Brexit and the relevance of regional personality traits: More psychological Openness could have swung the regional vote', *Cambridge Journal of Regions, Economy and Society*, Vol. 11, pp. 165–175; see also CEPR VOX EU blog, available at <http://voxeu.org/article/options-global-britain-after-brexit> (accessed 24th January, 2020).
15. Digman, J. M. (1990), 'Personality Structure: Emergence of the Five-Factor Model', *Annual Review of Psychology*, Vol. 41, pp. 417–440.
16. John, O. P. and Srivastava, S. (1999), 'The Big Five Trait taxonomy: History, Measurement, and Theoretical Perspectives', in Pervin, L. A. and John, O. P. (eds), *Handbook of Personality: Theory and Research*, 2nd edn, Guilford, New York, pp. 102–139.
17. Luthar, S. and Becker, B. (2000), 'The Construct of Resilience: A Critical Evaluation and Guidelines for Future Work', *Child Development*, Vol. 7, pp. 543–562.
18. Luthar, S. S. (ed.) (2003), *Resilience and Vulnerability: Adaptation in the Context of Childhood Adversities*, Cambridge University Press, Cambridge.
19. Folke, C. (2006), 'Resilience: The Emergence of a Perspective for Social-Ecological Systems Analysis', *Global Environmental Change*, Vol. 15, pp. 253–267.
20. Walker, B. and Salt, D. (eds) (2006), *Resilience Thinking: Sustaining Ecosystems and People in a Changing World*, Island Press, Washington.
21. Masten, A. S. (2014), *Ordinary Magic: Resilience in Development*, Guilford Press, New York.
22. *Ibid.*, note 2.
23. *Ibid.*, note 3.
24. Martin, R. L., (2018), 'Shocking aspects of regional development: Towards an economic geography of resilience', in Clark, G. L., Feldman, M. A., Gertler, M. and Wojcik, D. (eds), *The New Oxford Handbook of Economic Geography*, Oxford University Press, Oxford, pp. 839–864.
25. *Ibid.*, note 24.
26. *Ibid.*, note 3.
27. Weber, M. (1930), *The Protestant Ethic and the Spirit of Capitalism*, Allen & Unwin Ltd, London.
28. Huggins, R. and Thompson, P. (2016), 'Socio-spatial culture and entrepreneurship: Some theoretical and empirical observations', *Economic Geography*, Vol. 92, No. 3, pp. 269–300.
29. Huggins, R. and Thompson, P. (2019), 'The behavioural foundations of urban and regional development: Culture, psychology, and agency', *Journal of Economic Geography*, Vol. 19, pp. 121–146.
30. Rodríguez-Pose, A. and Storper, M. (2006), 'Better Rules or Stronger Communities? On the Social Foundations of Institutional Change and Its Economic Effects', *Economic Geography*, Vol. 82, pp. 1–25.
31. Florida, R., Mellander, C., Rentfrow, P. J. (2013), 'The happiness of cities', *Regional Studies*, Vol. 47, pp. 613–627.
32. Storper, M. (2013), *Keys to the City: How Economics, Institutions, Social Interaction, and Politics Shape Development*, Princeton University Press, Princeton.
33. Aslam, A. and Corrado, L. (2012), 'The geography of well-being', *Journal of Economic Geography*, Vol. 12, No. 3, pp. 627–649.
34. Duranton, G. and Puga, D. (2004), 'Micro-Foundations of Urban Agglomeration Economies', in Henderson, J. V. and Thisse, J. F. (eds), *Handbook of Regional and Urban Economics 4*, Elsevier, London, pp. 2063–2117.

35. Baddeley, M. (2014), 'Rethinking the micro-foundations of macroeconomics: Insights from behavioural economics', *European Journal of Economics and Economic Policies: Intervention*, Vol. 11, pp. 99–112.
36. Baddeley, M. (2017), *Behavioural Economics: A Very Short Introduction*, Oxford University Press, Oxford.
37. Rentfrow, P. J., Obschonka, M., Stuetzer, M., Shaw-Taylor, L., Satchell, M., Silbereisen, R. K., Potter, J. and Gosling, S. D. (2018), 'In the shadow of coal: The macro-psychological vestiges of the Industrial Revolution', *Journal of Personality and Social Psychology*, Vol. 115, No. 5, pp. 903–927.
38. Combes, P.-P., Duranton, G., Gobillon, L. and Roux, S. (2010), 'Estimating Agglomeration Economies with History, Geology and Worker Efforts', in Glaeser, E. L. (ed.), *Agglomeration Economics*, University of Chicago Press, Chicago, pp. 15–66.
39. Duranton, G., Rodríguez-Pose, A. and Sandall, R. (2008), 'Family Types and the Persistence of Regional Disparities in Europe', *Economic Geography*, Vol. 85, pp. 23–47.
40. Martin, R. L. and Sunley, P. (2006), 'Path dependence and regional economic evolution', *Journal of Economic Geography*, Vol. 6, No. 4, pp. 395–437.
41. *Ibid.*, note 13.
42. Adorno, T. W., Frenkel-Brunswik, E., Levinson, D. J. and Sanford, N. (1950), *The Authoritarian Personality*, Harper & Brothers, New York.
43. Lewin, K. (1936), *Principles of Topological Psychology*, Heider, F. and Heider, G. M. (trans.), McGraw-Hill, New York.
44. *Ibid.*, note 16.
45. *Ibid.*, note 9.
46. Rentfrow, P. J., Jokela, M. and Lamb, M. E. (2015), 'Regional personality differences in Great Britain', *PLOS One*, Vol. 10, No. 3.
47. *Ibid.*, note 12.
48. Obschonka, M., Stuetzer, M., Gosling, S. D., Rentfrow, P. J., Lamb, M. E., Potter, J. and Audretsch, D. B. (2015), 'Entrepreneurial Regions: Do Macro-Psychological Cultural Characteristics of Regions Help Solve the "Knowledge Paradox" of Economics?' *PLOS One*, Vol. 10, No. 6.
49. *Ibid.*, note 48.
50. Lee, N. (2017), 'Psychology and the geography of innovation', *Economic Geography*, Vol. 93, No. 2, pp. 106–130.
51. *Ibid.*, note 13.
52. *Ibid.*, note 14.
53. *Ibid.*, note 14.
54. Since the basic data set that will be used for the empirical analysis in the present paper is (almost) identical to the data set in Garretsen *et al.* (2019), the discussion that follows draws on that paper.
55. Martin, R. L., Gardiner, B. and Tyler, P. (2014), 'The Evolving Economic Performance of UK Cities: City Growth Patterns, 1981–2011', Foresight Future Cities Working Paper, UK Government Office for Science, London.
56. Martin, R. L., Sunley, P., Tyler, P. and Gardiner, B. (2016), 'Divergent cities in post-industrial Britain', *Cambridge Journal of Regions, Economy and Society*, Vol. 9, No. 2, pp. 269–299.
57. Martin, R. L., Sunley, P., Gardiner, B. and Tyler, P. (2016), 'How regions react to recessions: Resilience and the role of economic structure', *Regional Studies*, Vol. 50, No. 4, pp. 561–585.
58. *Ibid.*, note 55.
59. *Ibid.*, note 46.
60. Analyses of the five scales revealed satisfactory internal reliability (Cronbach's $\alpha = .86, .77, .83, .83,$ and $.79$, for extraversion, agreeableness, conscientiousness, neuroticism and openness, respectively) (Rentfrow *et al.* [2015], p. 7).
61. *Ibid.*, note 13.
62. *Ibid.*, note 50.
63. *Ibid.*, note 13.
64. *Ibid.*, note 55.
65. Fingleton, B., Garretsen, H. and Martin, R. L. (2012), 'Recessionary Shocks and Regional Employment: Evidence on the Resilience of UK Regions', *Journal of Regional Science*, Vol. 52, pp. 109–133.
66. *Ibid.*, note 3.
67. *Ibid.*, note 2.
68. To avoid clutter we include the names of a limited number of regions.
69. *Ibid.*, note 41.
70. *Ibid.*, note 12.
71. *Ibid.*, note 37.
72. *Ibid.*, note 48.
73. *Ibid.*, note 9.
74. *Ibid.*, note 37.
75. The results for this analysis are not shown here but are available upon request.
76. Almlund, M., Duckworth, A. L., Heckman, J. J. and Kautz, T. D. (2011), 'Personality Psychology and Economics', in Hanushek, E., Machin, S. and Woessmann, L. (eds), *Handbook of the Economics of Education*, Elsevier, Amsterdam, pp. 1–181.
77. *Ibid.*, note 13.
78. *Ibid.*, note 48.

Enhancing collective happiness in the city: *Felicitas publica* and the availability of relational goods

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Abstract Informed by positive psychology and the fields of urban studies, design, economics, political philosophy and sociology, this paper presents an exploration of different conceptual models of happiness and well-being and considers their potential to be applied in an urban context. It introduces the ideas of ‘public happiness’ (*felicitas publica*), ‘relational goods’ and ‘third places’ and makes a case for their foregrounding in urban policy and practice. A case study, focusing upon a project implemented in the city of Lisbon, Portugal is used to demonstrate the ways in which policy makers might actively intervene to enhance collective happiness in the city.

Keywords: *felicitas publica, cities, well-being, relational good, relationships, eudaimonia*

‘A cidade não é um lugar. É a moldura de uma vida’. [The city is not a place. It is the frame of a lifetime.]¹

INTRODUCTION

Informed by the broad field of positive psychology, but drawing also upon the

disciplines of urban studies, psychology, design, economics, political philosophy and sociology, this paper reviews theories and models of happiness and well-being and reflects upon their capacity to instruct urban public policy. We then introduce the idea of ‘public happiness’ (*felicitas publica*) and explore the potential of what we term ‘relational goods’ and ‘third places’ in promoting happiness in cities. We present a case study of an intervention implemented in the city of Lisbon, Portugal, which demonstrates how it might be possible to enhance collective happiness in an urban context. We conclude that eudaimonic and relational approaches to city governance and urban renewal can enhance public well-being.

CITIES AS PROGENITORS AND BENEFICIARIES OF HUMAN HAPPINESS AND WELL-BEING

Today, as it has always been, two fundamentally different views of the city jostle for our attention. One perspective celebrates the city as a progenitor of human flourishing, trades on utopian rhetoric and generates proposals on how to further build the city so that it better enhances human life.^{2–15} Another perspective construes the city as a destructive machine which erodes human flourishing and self-actualisation.^{16–18} The city is ugly, dirty, dangerous and overcrowded — beset by poverty, injustice, incivility, pollution and disease. Cities are centres of conflict, scarcity, alarming population growth, ecological disasters, exclusion, inept politics and social and economic inequalities.^{19–21} They conspire to estrange us from ourselves, from others, and from nature.²²

Of course, neither view is exclusively correct; both utopian and dystopian urban imaginations always have a degree of truth and always exist in tension. Given this tension, approaching humanity’s primary

habitat (the city) as a happiness project could therefore be considered somewhat naïve.^{23–26} But there can and must be hope that even if cities are not always or even often life-affirming, they can be remade so that they engender greater well-being and happiness.²⁷

It is heartening therefore to witness a ‘happiness turn’ in positive psychology, positive design, positive computing, urban planning, economics and mental health care.^{28–37} Meanwhile, community psychology³⁸ and positive community psychology^{39–41} have served as a bridge between studies of positive psychology and the meaning and relevance of communities as spaces for transformative dialogue. Both approach the community from the perspective of values.^{42,43} There is emerging from this interdisciplinary and inter-sectoral ‘happiness turn’ a happy city model which aims to steer cities away from their worst selves⁴⁴ and to promote transformative and disruptive change which focuses urban governance and policy on questions of subjectivity, emotionality and *relationality*.^{45–49}

Happy cities matter. It is clear that cities have an impact on our mental emotional states which then affects our general health, and the quality of our relationships, and then all these, in turn, affect the city.^{50–52} Because of these relationships, the city can be thought of as a mental health tool or remediating instrument that prevents disease and promotes salutogenesis^{53–56} defined as:

‘An approach to human health that examines the factors contributing to the promotion and maintenance of physical and mental wellbeing rather than disease, with particular emphasis on the coping mechanisms of individuals which help preserve health despite stressful conditions.’⁵⁷

A happiness agenda for cities has the potential to have a profound effect on

the social and economic prosperity of cities and in a virtuous cycle of equitable social and economic development has the potential to create conditions in which the happiness and well-being of urban residents flourish.

FROM URBAN ECONOMICS TO SUBJECTIVE MONITORING OF URBAN WELL-BEING

The social-scientific theorising of happiness and its expression in policy, practice and public affairs, presents as a diverse and nascent field.^{58–60} There is much to unpack. There would appear to exist two chief analytical strands in the making.

The first seeks to understand psychologies of ‘hedonism’: the dynamics of basic life satisfaction and positive emotional experience (the drive to avoid or minimise pain while seeking pleasure).⁶¹ The second prioritises ‘eudaimonia’: a more rounded sense of happiness that arises as people function and interact within society, focusing on purpose, meaning and virtue.^{62,63} The latter tradition emphasises non-material pursuits, such as genuine relationality and intrinsic motivation, and can be defined as the happiness of sociality achieved throughout the practice of civic virtues, the realisation of one’s true potential, the presence of non-instrumental and positive relationships, and the experience of a meaningful life.^{64–68}

With regard to measuring well-being as a subjective experience, the Organisation for Economic Co-operation and Development (OECD),⁶⁹ in its document ‘Guidelines on Measuring of Subjective Well-being’, aimed to integrate both hedonic and eudaimonic perspectives, and thus included all forms of positive and negative assessment that people make when assessing their quality of life and affective state.^{70,71} The OECD definition includes three dimensions:

1. A cognitive and evaluative (objective) dimension — the estimation of satisfaction with life, which measures how people feel through a thoughtful assessment of their life in general, or of some specific sphere of their existence like work, urban life, commuting, leisure time, or family;
2. An affective (subjective) dimension, which measures emotional states or feelings, usually based on a time point, such as the experiences of the previous day; and
3. A dimension connected to meaning and purpose in life — also described as the measurement of psychological functioning or flourishing.

A happy city is one where people feel relaxed, safe, comfortable, and confident in others — that is, where they experience positive emotions.^{72–75}

Economic and other objective indicators are frequently at odds with reports of well-being in developed countries. This is because, despite the clear increase in material wealth, subjective well-being levels have stabilised, mental illness has increased at an intense rate and the social fabric has weakened more visibly than in times of greater poverty.^{76,77} There is robust evidence that there exists a correlation between income and happiness,⁷⁸ but rising income does not always mean rising happiness. Some economists see a positive correlation, based on evidence that, on average, persons living in richer countries are happier than are those living in poorer countries. But others take the view a positive wealth–happiness association is neither universal nor strong: poorer countries do not always appear to be less happy than richer countries.^{79,80}

Reflecting these complications, it is increasingly claimed that governments should use measures of population well-being instead of economic activity to

assess national growth and articulate policy accordingly.⁸¹ Gross domestic product (GDP) is considered an outdated measure with which to analyse the economic performance of a country or region or to make international comparisons. GDP is a construct that has limited meaning for the individual citizen:

‘Happiness tells us how well a society satisfies the major concerns of people’s everyday life. GDP is a measure limited to one aspect of economic life, the production of material goods. The aphorism that money isn’t everything in life, applies here. If happiness were to supplant GDP as a leading measure of societal well-being, public policy might perhaps be moved in a direction more meaningful to people’s lives.’⁸²

Together, objective and subjective measures of well-being and happiness allow for a deeper understanding of how demographic, socioeconomic, geographic and social determinants affect the happiness of citizens in urban contexts, and to quantify their relative importance.^{83–86} Composite measures are being devised, integrating indicators of, for example, good services, local and community initiatives, social quality, regional and social policies (such as those linked to employment opportunities), transport quality, and travel time between home and work. These composite indicators of quality of urban life enable us to understand happiness and to measure its impact.^{87–89}

Measures of happiness (subjective well-being) and objective measures of quality of life are intimately linked. One study shows an inverted U in the relationship between happiness and quality of life, on the one hand, and population density, on the other.⁹⁰ Climate, education, economic conditions, safety and environment seem also relevant to self-reported quality of life.⁹¹ Perceived health

is likewise a very important dimension in determining urban happiness levels.⁹² Fear of crime, terrorism and war also clearly influence subjective happiness,⁹³ as does commuting time.⁹⁴ A significant negative correlation between happiness and air, water, and noise pollution, traffic congestion and environmental disasters has also been identified.^{95,96} In addition, a clear and positive relationship has been found between happiness and higher winter temperatures, and lower summer temperatures and a negative relationship with higher-rainfall regions and cities.⁹⁷ The analysis of the impact of green areas on well-being⁹⁸ similarly has found a positive and significant relationship; data confirms the existence of an inverted U-shaped relationship between subjective well-being and quantity and distance from green zones.⁹⁹

FELICITAS PUBLICA (PUBLIC HAPPINESS) AND THE AVAILABILITY OF RELATIONAL GOODS

In the culture of ancient Rome, *felicitas* was the condition of fertility, blessing and bliss inspired by the gods. This concept has been linked with some of the current images of idealised future cities: cities that thrive healthily and help their citizens flourish, achieving their full potential and working together for the common good.¹⁰⁰ This vision of happiness is linked to civic sociability and relational goods, and to the three dimensions of interpersonal relationships: family, friends and society. It is present today in the rebirth of the concept of public happiness, initially discussed by 18th-century Italian economists.^{101,102} Now, applied to the city, it realigns us with a humanistic perspective, which defends happiness as a relational and virtuous experience of human institutions, organisations and systems — a model that stands in opposition to the mere view of happiness

as an internal, individual and hedonic experience. The concept of 'public' in 'public happiness' refers to participation in the public sphere, that is, having a part in the affairs of the (local and / or national) state. It represents a feature of the system of rights that defines the political relationship between citizens, as opposed to their personal well-being or individual mental states.

Some authors¹⁰³ consider that the low consumption of relational goods — briefly defined as non-instrumental interpersonal relations — explains many of the paradoxes of happiness that we see, for example, in its divergence from levels of relative wealth. The affective components of interpersonal relationships that are perceived as having value, meaning and authenticity are, thus, vital to well-being.¹⁰⁴

The dissolution of social relations is one of the most destructive agents that can act against happiness.¹⁰⁵ Recent literature within the social sciences offers increasing grounds for concern, affirming that time devoted to interpersonal relations is falling, crowded-out by the extension of markets into domains covered, in the past, by non-market institutions such as family, churches and civil society in general. Well-being is contingent, to an increasing extent, upon social features like social environment and the ability to construct and appreciate meaningful and pleasing relations with others. Interpersonal trust and local community networks are, indeed, one of the greatest sources of well-being, so the quality of interpersonal relationships and the ability to have secure, intimate, and stable social connections is highly beneficial to people's happiness.^{106,107} It is easy to see how the structure, architecture and design of cities can promote or weaken this type of happiness.

Two models investigate relational goods linked to urban quality of life

and well-being, based on subjective approaches:¹⁰⁸ the Hedonic Price model^{109,110} and the Life Satisfaction Approach.¹¹¹

The first argues that people reveal their preferences for attributes associated with urban areas through decisions that are rooted in location, making these decisions depend on the presence (or absence) of certain amenities. People are willing to pay more for housing or to receive lower wages to live in certain locations and access certain amenities.¹¹² This model is based on the notion that housing production costs are equal across cities, allowing the 'added value' price of amenities to be assessed, interpreted as the monetary value that a typical household attaches to the set of accessible amenities in each city. This model, however, fails to grasp the way in which cities have evolved with distinctive spatial barriers between rich, poor and other demographic groups, and how decisions have been made on the location of amenities. It has also been criticised for considering that social relations are not among the amenities of a city, at least not in the same way as air quality, access to greenery, schools or other services.¹¹³

The Life Satisfaction Approach model instead uses self-rated life satisfaction as an approximation of subjective well-being and assumes that local amenities — or their absence — contribute to determining well-being.¹¹⁴ The promising aspects of the preliminary studies using this second model have already led to the creation and use of relational quality of life indices in cities.¹¹⁵ One index¹¹⁶ applied in Italian cities includes three indicators: 1) time spent with friends; 2) active participation in associations and volunteering; and 3) frequency of outings for leisure activities. Results show that people are willing to pay significant money to live in cities where they can access these goods. These values may be

around €3,880, which is significant in a sample with an average annual salary of €30,000.¹¹⁷ The choice of a place to live is thus affected by relational amenities, not just material factors such as services, climate or environment. In another study, based on the British Household Panel Survey, Powdthavee¹¹⁸ showed that an increase in social involvement with friends, family and neighbours is worth up to £85,000 a year in terms of life satisfaction. Also, citizens indicated that they were happier in cities where they felt they could rely more on neighbours and strangers.¹¹⁹

The results are clear: relational variables unequivocally affect the quality of urban life and perceived well-being, accounting for substantial variability. Data also indicates that social capital is a substitute for the failure of cities' services and social conditions: less efficient areas in terms of the quality of society, interpersonal relationships, climate and the environment, compensate for these failures.¹²⁰ This does not diminish, however, the fact that quality of life is mostly influenced by services and social components.¹²¹

Current data indicates that amenities created by people, concrete and visible, carry significant weight in deciding which city to live in and on migration between cities, which means that public policies in municipal management, particularly for investment in the area of human and social capital, can make a real difference to people's locational choices.^{122–127}

BUILDING COMMUNITIES WITHIN CITIES: 'THIRD PLACES'

Despite the tensions that can arise between groups in communal city living — having at the same time 'the wound and the blessing'¹²⁸ — a good collective life is best achieved through communion and dialogue that includes all levels

and parts of a social system. This way, society can move towards more equality, social justice and public happiness, since living based on mutually respectful and interdependent coexistence with others and the planet will enhance the presence and quality of common goods. If community is referred to as a value (a way of bringing cohesion, social justice, empowerment, etc.) and as a set of descriptive variables and categories (such as location, interest, identity, communion, risk, resources, organisations, diasporas), the value of the community itself can be perceived and potentially measured and the need for a healthy community at the urban level articulated and understood. If human development has been shown to have a positive impact on economic growth, the opposite is not necessarily true and the above understanding helps to redress this imbalance.¹²⁹

One way to mobilise relational and public happiness is by creating 'third places',¹³⁰ taking into account the physicality of everyday spaces. 'Third places' is an expression referring to locations where people spend time between home (first place) and work (second place).¹³¹ In these third places, people build horizontal relationships, create dialogue and exchange ideas in a casual way. Informal conversations are the main activity. The experience itself is a pleasant and positive one. Urban planners who want to support the sense of community and reinforce neighbourhoods are converging on the critical role of these locations. Cafes, public parks, bookstores, neighbourhood associations, places of worship, hairdressers, gyms, restaurants, the beach — these are examples of third places where community building occurs through routine connections. They are considered the 'living room of society'. In Europe, for instance, cafes were traditionally a place to promote culture, creativity and networking. Third

places have many relevant community-building attributes. Some are levelling out differences between social classes and ethnic groups, because people feel like equals within them. Third places are unpretentious and neutral, meaning that people can come and go without any penalty. They are accessible, and no reservation is needed. Strengthening social webs is a vital step in building cities as spaces of happiness, and this can be done by revitalising neighbourhoods, ensuring a determined approach to tackling social problems. These third places can make a decisive contribution to lessening human and social gaps, stabilising communities and reducing social problems.¹³² The differences in status that matter so much elsewhere are not significant here.

The risk of losing face-to-face social connections from going increasingly digital is escalating and makes third places more relevant than ever. They are not just a central city issue — they are equally applicable in suburban neighbourhoods. In both locations, they can help build social and economic connections that enhance health, well-being and equity, and can even help lower poverty levels. The availability of meeting spaces, walking spaces (banning the car from the centre of urban life, for example, is one of the current solutions for a good city) or free Wi-Fi areas can create more hospitable conditions for social connection, especially between groups that might otherwise be separated. Local government agencies, decision-makers, local businesses, universities and schools and senior centres, can work together with architects, designers, students, elderly and other community members to develop spaces that promote the opportunity for third places to emerge. Citizen-generated contexts¹³³ contradict highly hierarchical settings and propose conversational frameworks for public administration, and a means to achieve more shared goals.¹³⁴

A CASE STUDY IN LISBON: UNLOCKING THE POTENTIAL OF UNIVERSITIES AS FACILITATORS OF PUBLIC HAPPINESS

The city of Lisbon, populated since prehistory as a colony of the Roman Empire as part of the province of Lusitania, was called *Olisipo Felicitas Julia*, a clear reference to a city of happiness. This inspired the project delivered by the University of Lisbon (Universidade de Lisboa), a public institution with different campuses around the Portuguese capital and 18 different schools. This initiative aimed to bring together people from all sectors, ages, social class, etc. to participate in dialogues around positive and hopeful topics (peace, environmental sustainability and biodiversity, global citizenship, quality of life, new economic models, mental health, etc.) that might be of common and societal interest, in a friendly and relaxed atmosphere. Each conversation was unique — while still respecting values, opinions and individual and scientific rhetoric — and people happily anticipated each reunion.

The project included walks for sustainability in green areas nearby the different campuses, and meetings that gave voice to everyone and helped to build a sense of community, while exploring different locations, around and about the diverse university premises, sometimes in the old centre of town, other times in the peripheries of the city. People from different backgrounds were brought together to work in projects of common interest — seniors, handicapped, politicians, adolescents and many others — providing inclusiveness, empowerment and an ethics of caring, while fighting prejudice and despair. The project, which had many versions in previous years,^{135–137} so far has had the support of local authorities, community and university leaders, students and teachers, artists, neighbourhood associations, the

university rectorate, opinion leaders and the municipality. The debates provided a setting for grassroots democracy and politics, informal public life and are consequential for the quality of life of citizens. Using the university settings and other public locations as shared spaces to connect and provide a culture of belonging — since no one plays host at a third place — is also contributing to everyday negotiation of diversity, enabling participants to be active citizens.

People have long pursued happy places — ie settings where everyone is satisfied and fulfilled. These social places negotiate diversity and are somehow transgressive. In the case of this project, part of a UNESCO Chair on Education for Global Peace Sustainability, university premises are used with a function that goes way beyond the one usually stated for academia. It can tackle the increasing privatisation and isolation of home life, while feeling similar to a good, comfortable home. As one of the most relevant researchers on happiness put it: ‘Third places contribute to the life worth living. They root us; they give us an identity; they restore us; they support us. Bottom line: They allow us to be us. And everyone knows our name.’¹³⁸ Undertaking society’s fragmentation through projects that underline civic politics, delivering on the ground, slowly instils a democracy of participation, in a moment of our collective story where, again, we need to save and value our shared humanity.

CONCLUDING REMARKS

Understanding the interaction between the geography of a place and what makes people happy will help to anticipate what urban policies are needed and to predict the impacts of urban policy decisions. Additionally, a hopeful view of future urban life needs to be more clearly imagined and delivered. Creating

a socially just and inclusive city, with strong obligations towards the people that are marginalised from human fulfilment of all kinds,¹³⁹ is a shared responsibility. There is a growing interest in studying and promoting eudaimonic approaches to urbanism, understanding the direct links between relational goods, the success of a city and the cost benefits of enhancing them.¹⁴⁰ Relational goods can only be enjoyed in a reciprocal manner because they are built of two-way relationships. In affluent societies, people produce and consume too few relational goods, with the unintentional result of a decrease of individual and public happiness.¹⁴¹ This is perhaps one of the biggest challenges for contemporary social sciences.^{142–147}

The conclusion is therefore that we should design and manage emotionally intelligent cities, building close communities, promoting non-instrumental relatedness, which increases solidarity, fairness and justice — a sort of ‘social accountability’ — and expand the possibilities for informed choices, with benefits shared by all.^{148–153}

One of the fundamental purposes of cities should be to make people healthy and happy, so the happiness of citizens needs to be taken into account when planning, designing and governing a city.^{154–162} As the 19th-century Portuguese writer Eça de Queiroz eloquently described in his book *The City and the Mountains*, ‘the most genuinely human feelings soon dehumanize in the city’.¹⁶³ May we enhance the conditions that contradict him in the near future.

References

1. Couto, M. (2005), *Pensamentos: Textos de Opinião*, Caminho, Lisbon.
2. Amin, A. (2006), ‘The good city’, *Urban Studies*, Vol. 43, Nos. 5–6, pp. 1009–1023.
3. Anderson, B. (2005), ‘Book review: The emancipatory city? Paradoxes and possibilities’, *European Urban and Regional Studies*, Vol. 12, No. 4, pp. 373–374.

4. Batty, M. (November 2011), 'Building a science of cities', Working Papers Series, Paper No. 170, available at <https://www.bartlett.ucl.ac.uk/casa/pdf/paper170.pdf> (accessed 12th February, 2020).
5. Ballas, D. (2013), 'What makes a "happy city"?', *Cities*, Vol. 32, pp. 39–50.
6. Ballas, D. and Dorling, D. (2013), 'The Geography of Happiness', in David, S., Boniwell, I. and Ayers, A. C. (eds), *The Oxford Handbook of Happiness*, Oxford University Press, Oxford, pp. 465–481.
7. *Ibid.*, note 2.
8. *Ibid.*, note 2.
9. *Ibid.*, note 2.
10. *Ibid.*, note 3.
11. Amin, A. (2002), 'Ethnicity and the multicultural city', *Environment and Planning A*, Vol. 34, No. 6, pp. 959–980.
12. Amin, A. and Thrift, N. (2002), *Cities: Reimagining the Urban*, Polity, Cambridge.
13. Baubock, R. (2003), 'Reinventing urban citizenship', *Citizenship Studies*, Vol. 7, No. 2, pp. 139–160.
14. Mean, M. and Tims, C. (2005), *People Make Places*, Demos, London.
15. Mitchell, D. (2003), *The Right to the City: Social Justice and the Fight for Public Space*, Guilford Press, New York.
16. *Ibid.*, note 2.
17. Bauman, Z. (2003), *City of Fears, City of Hopes*, Goldsmith's College, London.
18. MacLeod, G. (2002), 'From urban entrepreneurialism to a revanchist city? On the spatial injustices of Glasgow's renaissance', *Antipode*, Vol. 34, No. 3, pp. 602–624.
19. Marujo, H. Á. and Neto, L. M. (2019), 'FeliCidades: Como ser humanos juntos', in Seixas, P. (ed.), *Ativar cidades: Modelos de políticas de cidades*, Caleidoscópio, Edições e Artes Gráficas, Portugal, pp. 165–180.
20. Montgomery, C. (2013), *Happy City: Transforming Our Lives through Urban Design*, Farrar, Straus and Giroux, New York.
21. *Ibid.*, note 20.
22. Albouy, D. (2008), 'Are big cities bad places to live? Estimating quality of life across metropolitan areas', NBER Working Paper No. 14472, pp. 1–67, available at <http://www.nber.org/papers/w14472> (accessed 12th February, 2020).
23. *Ibid.*, note 6.
24. *Ibid.*, note 2.
25. *Ibid.*, note 20.
26. Gharib, M. A., Golembiewski, J. A. and Moustafa, A. A. (2017), 'Mental health and urban design: Zoning in on PTSD', *Current Psychology*, pp. 1–7.
27. The Happiness Research Institute, 'Happiness Research', available at www.happinessresearchinstitute.com/happinessresearch (accessed 12th February, 2020).
28. Calvo, R. A. and Peters, D. (2014), *Positive Computing: Technology for Wellbeing and Human Potential*, MIT Press, Cambridge, MA.
29. Petermans, A. and Pohlmeier, A. E. (2014), 'Design for subjective well-being for interior architecture', Proceedings of the 6th Symposium of Architectural Research 2014: Designing and Planning the Built Environment for Human Well-Being; 23rd–25th October, University of Oulu, Department of Architecture Publications, Finland, pp. 216–218.
30. Kirillova, K., Fu, X. and Kucukusta, D. (2020), 'Workplace design and well-being: Aesthetic perceptions of hotel employees', *Service Industries Journal*, Vol. 40, Nos. 1–2, pp. 27–49.
31. Sibinga, E. M., Kerrigan, D., Stewart, M., Johnson, K., Magyari, T. and Ellen, J. M. (2011), 'Mindfulness-based stress reduction for urban youth', *Journal of Alternative and Complementary Medicine*, Vol. 17, No. 3, pp. 213–218.
32. *Ibid.*, note 26.
33. *Ibid.*, note 26.
34. Landry, C. (2017), *The Civic City in a Nomadic World*, NAI, Rotterdam.
35. *Ibid.*, note 20.
36. *Ibid.*, note 19.
37. Bruni, L. (2010), 'The happiness of sociality. Economics and eudaimonia: A necessary encounter', *Rationality and Society*, Vol. 22, No. 4, pp. 383–406.
38. World Health Organization (2019), 'Resources for health in cities', available at <https://www.who.int/health-topics/urban-health/cities-spotlight/resources-for-health-in-cities> (accessed 12th February, 2020).
39. Padhy, S. K., Sarkar, S., Davuluri, T. and Patra, B. N. (2014), 'Urban living and psychosis: An overview', *Asian Journal of Psychiatry*, Vol. 12, pp. 17–22.
40. Ryff, C. D. (1989), 'Happiness is everything, or is it? Explorations on the meaning of psychological well-being', *Journal of Personality and Social Psychology*, Vol. 57, No. 6, pp. 1069–1081.
41. Bruni, L. and Porta, P. L. (eds) (2016), *Handbook of Research Methods and Applications in Happiness and Quality of Life*, Edward Elgar Publishing, Northampton.
42. Bertram, C. and Rehdanz, K. (2014), 'The role of urban green space for human well-being', Institute for New Economic Thinking, Working Paper No. 1911, available at <https://www.ifw-members.ifw-kiel.de/publications/the-role-of-urban-green-space-for-human-well-being/KWP%201911.pdf> (accessed 12th February, 2020).
43. Nelson, G. B. and Prilleltensky, I. (2010), *Community Psychology: In Pursuit of Liberation and Well-being*, Palgrave Macmillan, New York.
44. Neto, L. M. and Marujo, H. Á. (2013), 'Positive community psychology and positive community development: Research and intervention as transformative-appreciative actions', in Marujo,

- H. Á. and Neto, L. M. (eds), *Positive Nations and Communities: Collective, Qualitative and Cultural Sensitive Processes in Positive Psychology*, Springer, Dordrecht, pp. 209–230.
45. *Ibid.*, note 19.
 46. *Ibid.*, note 38.
 47. Thisse, J. (2014), “‘The new science of cities’ by Michael Batty: The opinion of an economist”, *Journal of Economic Literature*, Vol. 52, No. 3, pp. 805–819.
 48. Ballas, D. and Tranmer, M. (2012), ‘Happy people or happy places? A multilevel modeling approach to the analysis of happiness and well-being’, *International Regional Science Review*, Vol. 35, No. 1, pp. 70–102.
 49. Asfour, M. (2017), ‘Views on well-being research, policy and practice: An interview with Mohammad Asfour’, *Middle East Journal of Positive Psychology*, Vol. 3, No. 1, pp. 47–51.
 50. Bruni, L. (2016), ‘Public Happiness and Relational Goods. That Crucial Link that Economics and Policy Often Forget’, in Bartolini, S., Bilancini, E., Bruni, L. and Porta, P. L. (eds), *Policies for Happiness*, Oxford Scholarship online.
 51. *Ibid.*, note 57.
 52. Granata, E. (2016), ‘Quality of Life and Smart Cities’, in Bruni, L. and Porta, P. L. (eds), *Handbook of Research Methods and Applications in Happiness and Quality of Life*, Edward Elgar Publishing, Northampton, pp. 90–110.
 53. Landry, C. and Murray, C. *Psychology and the City: The Hidden Dimension*, Comedia, Gloucestershire.
 54. *Ibid.*, note 6.
 55. *Ibid.*, note 26.
 56. Stanca, L. (2016), ‘Happiness, Relational Goods and Hedonic Methodology’, in Bruni, L. and Porta, P. L. (eds), *Handbook of Research Methods and Applications in Happiness and Quality of Life*, Edward Elgar Publishing, Northampton, pp. 483–498.
 57. Tsouros, A. (2013), ‘City leadership for health and well-being: Back to the future’, *Journal of Urban Health*, Vol. 90, Suppl. 1, S4–S13.
 58. Merriam-Webster (2019), available at <https://www.merriam-webster.com/dictionary/salutogenesis> (accessed 12th February, 2020).
 59. Anthony, A. (January 2020), ‘Richard Layard: “It’s in politicians’ self-interest to make policies for happiness”’, *Guardian*, available at <https://www.theguardian.com/books/2020/jan/19/richard-layard-everybody-could-have-a-better-time-extract-from-can-we-be-happier> (accessed 12th February, 2020).
 60. Boyce, C. (June 2019), ‘Happiness maybe be a choice – except that it’s constrained by vested economic interests’, *The Conversation*, available at <https://theconversation.com/happiness-may-be-a-choice-except-that-its-constrained-by-vested-economic-interests-118435> (accessed 12th February, 2020).
 61. World Happiness Fest (2016), ‘World Happiness Fest’, available at www.happinessfestival.world (accessed 12th February, 2020).
 62. Birenboim, A. (2017), ‘The influence of urban environments on our subjective momentary experiences’, *Environment and Planning B: Urban Analytics and City Science*, Vol. 45, No. 5, pp. 915–932.
 63. Depledge, M. H., Stone, R. J. and Bird, W. J. (2011), ‘Can natural and virtual environments be used to promote improved human health and well-being?’, *Environmental Science Technology*, Vol. 45, No. 11, pp. 4660–4665.
 64. Eid, M. and Diener, E. (2004), ‘Global judgments of subjective well-being: Situational variability and long-term stability’, *Social Indicators Research*, Vol. 65, No. 3, pp. 245–277.
 65. *Ibid.*, note 19.
 66. *Ibid.*, note 34.
 67. Ryan, R. and Deci, E. (2001), ‘On happiness and human potentials: A review of research on hedonic and eudaimonic well-being’, *Annual Review of Psychology*, Vol. 52, No. 1, pp. 141–166.
 68. *Ibid.*, note 40.
 69. *Ibid.*, note 41.
 70. OECD (2013), ‘OECD guidelines on measuring subjective well-being’, OECD Publishing, Paris.
 71. *Ibid.*, note 70.
 72. *Ibid.*, note 56.
 73. *Ibid.*, note 6.
 74. *Ibid.*, note 22.
 75. *Ibid.*, note 56.
 76. *Ibid.*, note 67.
 77. Schimmel, J. (2009), ‘Development as happiness: The subjective perception of happiness and UNDP’s analysis of poverty, wealth and development’, *Journal of Happiness Studies*, Vol. 10, No. 1, pp. 93–111.
 78. Bruni, L. (2010), *A ferida do outro: Economia e relações humanas*, Cidade Nova, Abrigada.
 79. *Ibid.*, note 78.
 80. Easterlin, R. (1974), ‘Does Economic Growth Improve the Human Lot? Some Empirical Evidence’, in David, P. A. and Reder, M. W. (eds), *Nations and Households in Economic Growth: Essays in Honor of Moses Abramovitz*, Academic Press, New York, pp. 89–125.
 81. Fisher, M. (2019), ‘A theory of public well-being’, *BMC Public Health* 19, Paper No. 1283.
 82. Easterlin, R. (2016), ‘The science of happiness can trump GDP as a guide for policy’, *The Conversation*, available at <https://theconversation.com/the-science-of-happiness-can-trump-gdp-as-a-guide-for-policy-57004> (accessed 12th February, 2020).
 83. *Ibid.*, note 4.
 84. *Ibid.*, note 52.
 85. *Ibid.*, note 64.
 86. *Ibid.*, note 67.
 87. Marujo, H. Á. and Neto, L. M. (eds) (2013), *Positive Nations and Communities: Collective,*

- Qualitative and Cultural Sensitive Processes in Positive Psychology*, Springer, Dordrecht.
88. Marujo, H. Á. and Neto, L. M. (2016), 'Quality of Life Studies and Positive Psychology', in Bruni, L. and Porta, P. L. (eds), *Handbook of Research Methods and Applications in Happiness and Quality of Life*, Edward Elgar Publishing, Northampton, pp. 279–305.
 89. Marans, R. W. and Stimson, R. J. (eds) (2011), *Investigating Quality of Urban Life*, Springer, Dordrecht.
 90. Psatha, E., Deffner, A. and Psycharis, Y. (2011), 'Defining the quality of urban life: Which factors should be considered?', 51st Congress of the European Regional Science Association (ESA): New challenges for European regions and urban areas in a globalised world, Paper 785, 30th August–3rd September, Barcelona, Spain, pp. 1–18.
 91. OECD (2017), 'How is Life? Measuring Well-being', available at <http://www.oecd.org/std/3013071e.pdf> (accessed 12th February, 2020).
 92. *Ibid.*, note 3.
 93. Srinivasan, S. and Stewart, G. (2004), 'The quality of life in England and Wales', *Oxford Bulletin of Economics and Statistics*, Vol. 66, No. 1, pp. 16–32.
 94. Kahn, M. (2010), 'New Evidence on Trends in the Cost of Urban Agglomeration', in Glaeser, E. L. (ed.), *Agglomeration Economics*, University of Chicago Press, Chicago, pp. 339–354.
 95. *Ibid.*, note 52.
 96. Murray, T., Maddison, D. and Rehdanz, K. (2013), 'Do geographical variations in climate influence life-satisfaction?', *Climate Change Economics*, Vol. 4, No. 1, pp. 1–21.
 97. Stutzer, A. and Frey, B. (2008), 'Stress that doesn't pay: The commuting paradox', *Scandinavian Journal of Economics*, Vol. 110, No. 2, pp. 339–366.
 98. Levinson, A. (2012), 'Valuing public goods using happiness data: The case of air quality', *Journal of Public Economics*, Vol. 9, Nos. 9–10, pp. 869–880.
 99. *Ibid.*, note 97.
 100. *Ibid.*, note 42.
 101. *Ibid.*, note 48.
 102. Ambrey, C. and Fleming, C. (2013), 'Public greenspace and life satisfaction in urban Australia', *Urban Studies*, Vol. 51, No. 6, pp. 1290–1321.
 103. Bruni, L. and Zamagni, S. (2007), *Civil Economy. Efficiency, Equity, Public Happiness*, Peter Lang, Oxford.
 104. Bruni, L. and Stanca, L. (2008), 'Watching alone: Relational goods, television and happiness', *Journal of Economic Behaviour and Organization*, Vol. 65, Nos. 3–4, pp. 506–528.
 105. Gui, B. and Sugden, R. (2005), 'Why Interpersonal Relations Matter for Economics', in Gui, B. and Sugden, R. (eds), *Economics and Social Interactions, Accounting for Interpersonal Relations*, Cambridge University Press, Cambridge, pp. 1–22.
 106. Helliwell, J. F. (2006), 'Well-being, social capital and public policy: What's new?', *Economic Journal*, Vol. 116, No. 510, C34–45.
 107. Layard, R. (2005), *Happiness: Lessons From a New Science*, Penguin, New York.
 108. *Ibid.*, note 56.
 109. Putnam, R. (2000), *Bowling Alone: The Collapse and Revival of American Community*, Simon and Schuster, New York.
 110. Roback, J. (1982), 'Wages, rents, and the quality of life', *Journal of Political Economy*, Vol. 90, No. 6, pp. 1257–1278.
 111. Rosen, S. (1979), 'Wage-based Indexes of Urban Quality of Life', in Mieszkowski, P. and Straszheim, M. (eds), *Current Issues in Urban Economics*, John Hopkins Press, Baltimore, pp. 74–104.
 112. Buettner, T. and Ebertz, A. (2009), 'Quality of life in the regions: Results for German counties', *Annals of Regional Science*, Vol. 43, No. 1, pp. 89–112.
 113. *Ibid.*, note 52.
 114. *Ibid.*, note 52.
 115. *Ibid.*, note 88.
 116. *Ibid.*, note 88.
 117. *Ibid.*, note 88.
 118. Powdthavee, N. (2008), 'Putting a price tag on friends, relatives, and neighbours: Using surveys of life-satisfaction to value social relationships', *Journal of Socio-Economics*, Vol. 37, No. 4, pp. 1459–1480.
 119. *Ibid.*, note 105.
 120. *Ibid.*, note 52.
 121. *Ibid.*, note 52.
 122. *Ibid.*, note 118.
 123. *Ibid.*, note 3.
 124. Richardson, H. W., Mulligan, G. F. and Carruthers, J. L. (2012), 'US Housing Policy in the Era of Boom and Bust', in Jones, C., White, M. and Dunse, N. (eds), *Challenges of the Housing Economy: An International Perspective*, Wiley-Blackwell, Oxford, pp. 25–46.
 125. *Ibid.*, note 4.
 126. *Ibid.*, note 38.
 127. *Ibid.*, note 38.
 128. *Ibid.*, note 78.
 129. *Ibid.*, note 128.
 130. Ranis, G., Stewart, F. and Ramirez, A. (2000), 'Economic growth and human development', *World Development*, Vol. 28, No. 2, pp. 197–219.
 131. Oldenburg, R. (1999), *The Great Good Place: Cafés, Coffee Shops, Bookstores, Bars, Hair Salons and Other Hangouts at the Heart of a Community*, Marlowe, New York.
 132. *Ibid.*, note 130.
 133. Faggian, A., Olfert, M. R. and Partridge, M. D. (2011), 'Inferring regional well-being from individual revealed preferences: The "voting with your feet" approach', *Cambridge Journal of Regions, Economy Society*, Vol. 5, No. 1, pp. 163–180.
 134. Cohen-Cline, H., Turkheimer, E. and Duncan, G. E. (2015), 'Access to green space, physical

- activity and mental health: A twin study', *Journal of Epidemiology and Community Health*, Vol. 69, No. 6, pp. 523–529.
135. *Ibid.*, note 39.
136. *Ibid.*, note 43.
137. *Ibid.*, note 44.
138. *Ibid.*, note 128.
139. *Ibid.*, note 2.
140. Colombo, E. and Stanca, L. (2014), 'Measuring the monetary value of social relations: A hedonic approach', *Journal of Behavioral and Experimental Economics*, Vol. 50, pp. 77–87.
141. *Ibid.*, note 34.
142. *Ibid.*, note 52.
143. *Ibid.*, note 131.
144. *Ibid.*, note 52.
145. *Ibid.*, note 5.
146. *Ibid.*, note 40.
147. *Ibid.*, note 41.
148. Desmet, P. M. A. and Pohlmeier, A. E. (2013), 'Positive design: An introduction to design for subjective well-being', *International Journal of Design*, Vol. 7, No. 3, pp. 5–19.
149. Boess, S. and Pohlmeier, A. (2016), 'Designs with benefits: Hearth fire nights and bittersweet chores', Proceedings of DRS 2016, Design Research Society 50th Anniversary Conference, 27th–30th June, Design Research Society, Brighton, pp. 1573–1587.
150. Casais, M., Mugge, R. and Desmet, P. M. A. (2018), 'Objects with symbolic meaning: 16 directions to inspire design for well-being', *Journal of Design Research*, Vol. 16, Nos. 3/4, pp. 247–281.
151. *Ibid.*, note 29.
152. Calvo, R. A. and Peters, D. (2014), *Positive Computing: Technology for Wellbeing and Human Potential*, MIT Press, Cambridge, MA.
153. *Ibid.*, note 20.
154. *Ibid.*, note 48.
155. Frey, B. S., Luechinger, S. and Stutzer, A. (2010), 'The life satisfaction approach to environmental valuation', *Annual Review Resource Economics*, Vol. 2, No. 1, pp. 139–160.
156. *Ibid.*, note 52.
157. Mulligan, G. and Carruthers, J. I. (2011), 'Amenities, QoL and Regional Development', in Marans, R. W. and Stimson, R. J. (eds), *Investigating Quality of Urban Llife*, Springer, Dordrecht, pp. 107–134.
158. *Ibid.*, note 38.
159. *Ibid.*, note 111.
160. *Ibid.*, note 48.
161. *Ibid.*, note 147.
162. Florida, R., Mellander, C. and Rentfrow, P. (2013), 'The happiness of cities', *Regional Studies*, Vol. 47, No. 4, pp. 613–627.
163. Queiroz, E. (1967), *The City and the Mountains*, Campbell, R. (trans. from Portuguese), available at https://trove.nla.gov.au/work/2814051?q&sort=holdings+desc&_id=1530870293788&versionId=251746518 (accessed 12th February, 2020).

Place-making in support of preventative public health: Lessons arising from NHS England's Healthy New Towns project

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Abstract There is robust evidence that the places where people live have a profound influence on whether or not they are able to live healthy lives. This link between quality of place and well-being is now recognised by the UK's National Health Service (NHS) and is viewed as a key progenitor of pernicious health inequalities. Increasingly, it is also being recognised and reflected in UK national planning policy. Planning policy is weak, however, with few mandatory quality standards, and many of the new homes and places being built in the UK are of a poor quality. Unless there is an urgent effort to strengthen and co-ordinate national policy regarding public health, planning and housing, it is highly likely that the design and management of the built environment will continue to increase the already large health inequalities between rich and poor. In support of thinking anew about place-making as preventative public health, this paper reports insights and lessons arising from NHS England's Healthy New Towns project.

Keywords: *planning, public health, inequality, design; mental health, environment*

INTRODUCTION

'Often, considerations as to what it will be like to live in a New Town are overlooked in a race to deliver new infrastructure and housing.'¹

According to the British Medical Association, 50 per cent of all GP appointments are for illness that could have been avoided.² This represents a huge amount of unnecessary ill health and suffering and is financially unsustainable for the NHS.

Many of the problems that cause today's illnesses are not things that the NHS was set up to cure: loneliness and anxiety; poor diet; lack of physical activity. Increasingly, NHS leaders understand that waiting until people are ill and then trying to mend them leads to ever-increasing healthcare bills.³ More effort must be put into improving the 'wider determinants' of health: ensuring that the places in which people live are designed and managed to support their health. The link between 'place' and 'health' is increasingly

recognised as fundamental — not only to people's physical well-being, but also to their psychological well-being.⁴ This was highlighted in Michael Marmot's hugely influential report, 'Fairer society, healthy lives'.⁵

NHS ENGLAND AND THE HEALTHY NEW TOWNS PROJECT

In 2014 NHS England⁶ published its 'Five Year Forward View'.⁷ This powerful document — just 39 pages long — set out in plain English what today's health problems are, and why the NHS must change profoundly if it is to address them. At the end was a sentence or two saying that NHS England would initiate a programme, which came to be called 'Healthy New Towns', to see if it is possible to create new places designed to facilitate good health.

This commitment grew into a fascinating experiment in which 10 large new developments, at different stages in the development process and in different parts of England, were given a small amount of funding plus brokerage and support to experiment to create new places with three characteristics:

- A built environment that would make healthier choices easier choices;
- Strong, supportive communities;
- Healthcare designed for 21st-century health needs.

PLACE-MAKING FOR HEALTHY LIFESTYLES AND COMMUNITY BUILDING

The Healthy New Towns project lasted just three years. In 2019, after it ended, NHS England published 'Putting health into place',⁸ a series of four documents that drew on learning from the Healthy New Towns project and provided, in effect, a 'how to' guide for creating

healthier places. Based on learning from the Healthy New Towns project, and from other projects in England and the rest of the world, 'Putting health into place', was researched and written through a collaborative partnership between three not-for-profit organisations, the TCPA,⁹ the King's Fund¹⁰ and the Young Foundation,¹¹ with support from government agency Public Health England.¹² It sets out 10 'principles' for creating healthy places, published in four documents (see Figure 1).

That NHS England felt it necessary to intervene in shaping the places in which people live is telling and represents a huge change. Traditionally, this sort of upstream 'prevention' work has been left to public health — and poorly funded.

Threaded throughout 'Putting health into place' are references to creating places with strong identities — places people feel they belong to. It is acknowledged that this is vital for people's psychological well-being. A related theme throughout the documents is that it is not enough to 'consult' local communities about new developments; local people must be actively involved in co-creating the new place, and this co-creation must include those members of society whose views and experiences are often ignored. Unless the views and needs of the old, the young, the poor and the frail are taken into account, the new development is likely to exclude them, or limit their opportunities to live healthily, and so will be likely to increase health inequalities rather than reduce them.

PLACE-MAKING FOR THERAPEUTIC LANDSCAPES

Many of the place-making principles set out in 'Putting health into place' will not surprise urban designers and architects. What is new is that evidence now shows that whether or not we experience good

Aims of Healthy New Towns project

- To shape new towns, neighbourhoods and communities to promote health and well-being, prevent illness and keep people living independently;
- To radically rethink the delivery of health and care services and to support learning about new models of integrated care;
- To spread learning and good practice to future developments and regeneration areas.

Lessons published in four reports 'Putting health into place'

- *Executive summary*: Summary of learning from Healthy New Towns project;
- *Principles 1–3 plan, assess and involve*: Covers planning ahead collectively, understanding local needs and assets and community engagement;
- *Principles 4–8 design, deliver and manage*: Covers the key elements of developing healthy places including neighbourhood and home design, active travel and green infrastructure;
- *Principles 9–10 develop and provide healthcare services*: Covers developing preventative and integrated care and health and well-being centres for new places.

Ten core principles of the project

1. Plan ahead collectively;
2. Assess local health and care needs and assets;
3. Connect, involve and empower people and communities;
4. Create compact neighbourhoods;
5. Maximise active travel;
6. Inspire and enable healthy eating;
7. Foster health in homes and buildings;
8. Enable healthy play and leisure;
9. Develop health services that help people stay well;
10. Create integrated health and well-being centres.



Map 1: The 10 Healthy New Town 'demonstrator sites'

10 demonstrator sites

Demonstrator site	Number of new homes being built
Barking Riverside, London	10,800 homes being built on brownfield land alongside the River Thames
Barton, Oxford	885 homes on a site next to John Radcliffe Hospital
Bicester, Oxfordshire	13,000 homes being built over 20 years
Cranbrook, Devon	8,000 homes being built on greenfield land
Darlington, County Durham	3,600 homes being built on three sites between 2018 and 2025
Ebbsfleet Garden City, Kent	Up to 15,000 homes being built on brownfield sites by 2026
Halton Lea, Runcorn	800 new homes and a health and well-being campus on a brownfield site
Northstowe, Cambridgeshire	10,000 homes being built on the former RAF Oakington base and surrounding land
Whitehill and Bordon, Hampshire	3,350 homes and commercial space being built on former Ministry of Defence land
Whyndyke Garden Village, Lancashire	A 1,400-home development on a 91ha site planned for the Fylde coast

Figure 1: Summary of NHS Healthy New Towns project 2016–19

Source: Author



Figure 2: Events to encourage healthier eating were part of Bicester's work to become a healthy new town

Source: Mike Ellis Photography

health and well-being is very strongly linked to whether or not we have good social connections. Strong communities are not merely a 'nice to have', they are vital for our health and well-being. Places that support good health are places where it is easy to bump into our neighbours as we go about our ordinary lives; places that have good local parks and public spaces where activities and events can happen; places that have strong identities and engender a sense of belonging in those who live in them. Several chapters in 'Putting health into place' set out how communities can be involved in co-creating the new development, and how they can have a role in shaping the way the new place is cared for and maintained once it has been built,¹³ giving them real and lasting influence

over the environment in which they live. A strong case is made for taking an 'asset-based' approach to working with all communities, focusing on their strengths and resources, rather than their perceived weaknesses.

Empowering local people and communities is a strong theme in the direction the NHS is now taking in terms of how it delivers healthcare. This approach was set out in the 2014 'Five Year Forward View' strategy document that also initiated the Healthy New Towns project; and since then has been strengthened in the NHS Long Term Plan,¹⁴ published in early 2019. In essence, primary healthcare¹⁵ services are being reorganised into area-based multidisciplinary teams offering a range of services with far more emphasis on helping people stay healthy.

An increasingly important ingredient in this new mixture is 'social prescribing': offering people non-medical services, such as community activities or classes, that can help them overcome problems such as social isolation, lack of physical activity, or poor diet. For planners and developers, this means creating new types of flexible health 'hubs' or local centres that could be used by community groups and GPs, as well as other health professionals such as pharmacists, dentists, or mental health teams. The type of building required will depend on local health needs and the mixture of services that will best address them. How this can be assessed and achieved is set out in the final part of 'Putting health into place'.¹⁶

STRENGTHENING LINKS BETWEEN PLANNING, PUBLIC HEALTH AND HOUSING IN ENGLAND'S NATIONAL PLANNING POLICY FRAMEWORK

For the NHS to state so unequivocally that strong communities and 'local identity' are vital underpinnings of



Figure 3: In Barton, the Hogmoor Inclosure natural play area provides an exciting place for kids to get active for free

Source: Mike Ellis Photography



Figure 4: A community wayfinding project in Whitehill and Bordon aimed to make walking across town easier

Source: Mike Ellis Photography

health and well-being is extraordinary. It adds considerable weight to a range of initiatives in England that have emerged in the last decade to draw attention to the importance of place-making, rather than simply building thousands of homes in response to government housing targets. These initiatives include the Place

Alliance,¹⁷ a large but loose network, co-ordinated by academics, that describes itself as a ‘movement campaigning for place quality’; and the Quality of Life Foundation,¹⁸ founded by architect Sadie Morgan to, ‘raise people’s quality of life and well-being by improving our built environment’.

The emergence of these initiatives is telling. Arguably, it has happened because requiring developers to ‘think about what it will be like to live in’ the place they are creating, and to create high quality places rather than collections of individual buildings, is not supported robustly enough by England’s National Planning Policy Framework,¹⁹ the nation’s overarching planning policy since 2012. The issue is not that national policy ignores issues of quality — it does not. The problem is that the language used is weak — for instance, ‘could’ rather than ‘must’ — making it difficult for council planners to enforce.

For instance, national policy does not set out a mandatory minimum standard for the size of new homes.²⁰ The oddly named ‘Nationally Described Space Standard’,²¹ which sets out minimum sizes for homes, is optional, and so whether or not new homes meet this — minimal — standard is a matter of negotiation between the council and the developer on each and every site.

In more affluent parts of the country, where land values are relatively high and developments generate larger profits, councils have more power to push developers to achieve higher standards. In areas of low land value, however, there is so little profit in building that developers argue they cannot afford to build homes that are large enough, or of a decent quality, or to create places that include the facilities that allow people to live the active, sociable lives that enable them to thrive.

In places where the private sector cannot, or will not, build good quality

places, then there is surely a good case to be made for the state to intervene, by subsidising some aspects of the development on condition that the developers create places that meet a range of quality standards. After all, if the state does not ensure that today's new developments are of a good enough quality for people to live healthy lives, then the state will pay tomorrow — through the NHS — when those people become ill and need healthcare.

Even in more affluent areas of England, however, where development values are high enough to make good quality economically viable, much new development falls far short of the place-making standards set out in 'Putting health into place'.²² While it is easy to assume that the fault is entirely that of the house builders, the problem is more complex. Developers argue that councils rarely manage to give them clear, consistent messages about what they want. For instance, it is not enough for the planners to insist on walkable neighbourhoods with priority given to pedestrians, if the highways department is asking the developer to prioritise roads, roundabouts and parking spaces.

Giving developers strong and consistent messages will only happen if good place-making becomes a priority for the whole council, and not just the planning department. That requires political and corporate leadership. TCPA research suggests that those places that have been successful in pushing developers to achieve higher standards have had strong political leaders who have remained in power for many years.²³ They have been prepared to have some difficult arguments, and they have been consistent in their demand for high quality.

The power of even the best-co-ordinated English planning authorities has, however, been fundamentally undermined by the government's recent expansion of

'permitted development rights'. These extended rights now allow buildings such as industrial units or office blocks to be turned into flats without going through the planning system.

At its worst, the expansion of permitted development rights is resulting in the creation of flats which, quite literally, have no windows, and 'flats' smaller than a standard car-parking space.²⁴ Local leaders, rightly concerned for the well-being of their communities, have no power to prevent this from happening. Inevitably, the people who will live in these appalling places are those who have no choice: the worst-off in society who, of course, tend to have the worst health.

Despite efforts to raise awareness of the sometimes dire 'homes' being created through permitted development, there appears to be little motivation for government to reverse the changes to permitted development rights. After all, creating new homes this way is quick, and it adds to the recorded number of new homes built in the last year, allowing ministers to claim to be effective in tackling the housing shortage. Headlines are all about brute numbers; important subtleties about 'quality of place' are squeezed out.

Local leaders, however, are well aware that forcing the worst-off in society to live in inhumane conditions is problematic for communities as a whole, not just the people who have their lives blighted by dire living conditions. Strong, cohesive communities are undermined by poor-quality homes — which often have high a high turnover of residents — built in the wrong places.

As local directors of public health are well aware, in parts of the country improvements in life expectancy have stalled for the first time,²⁵ particularly for the most disadvantaged. And, in addition to how long people live, there is also the issue of how many years of good health

people experience. Most people aspire to live a long and healthy life: no one desires a long life spent with debilitating chronic illness. In England, on average, well-off people have 20 years more good health than their less well-off neighbours.²⁶ In essence, better-off people are likely to be generally healthy until they are around 70; poorer people are likely to have one or more chronic illness by the time they are about 50, with clear implications for their ability to live happy, independent and productive lives. Much of the difference in healthy life expectancy can be attributed to how people live — and many of the choices people make are largely determined by the conditions and places in which they live.

The link between health and productivity is a theme in the UK government's Industrial Strategy.²⁷ Despite much being said in the strategy about the way in which digital technology is transforming healthcare by making it more efficient, tellingly, it makes no connection between productivity, health and the quality of the places in which people live.

Nevertheless, at a local level, the connection between health and prosperity is starting to be made. For instance, Greater Manchester Combined Authority's five-year plan for health and social care²⁸ states: 'Put simply, skilled, healthy and independent people are crucial to bring jobs, investment and therefore prosperity to Greater Manchester.'

As all this demonstrates, planning and place-making is currently at the nexus of opposing ideologies, both driven by economics. One says the state should intervene to create good places, to reduce future ill health and healthcare costs. The other says that the private sector should have the freedom to profit from building whatever people will buy, however detrimental to their health.

Which will win? Unless there is a major and co-ordinated change in a wide

range of national policies and associated funding commitments — including planning, housing and public health — the most likely outcome is that well-off people will continue to live in places that support their health; and those with no choice will increasingly have to live in places that undermine their health. Health inequalities will continue to increase and many people will continue to live for a decade or far longer in poor health, limiting their well-being, their contribution to society and the economy, and requiring considerable health and social care.

CONCLUSION

2020 is the 10th anniversary of the Marmot review.²⁹ In the introduction to the original report, Marmot says that commentators feared that implementing the review's recommendations would be too expensive. The review's thorough economic analysis, however, came to the opposite conclusion: 'Doing nothing is not an economic option.' In the decade since that review, its findings have not been applied strongly and consistently to planning and place-making. Unless they are, there is a clear risk that the NHS will become unaffordable, even to the most generous of governments. In pursuing an agenda of place-making for preventative health, it will be instructive to learn and apply further lessons from the Healthy New Towns project.

References and Notes

1. McGeough, K. (2019), 'Shaping the next generation of new towns and garden cities', *Creating Healthy Places, perspectives from NHS England's Healthy New Towns programme*, The King's Fund.
2. British Medical Association (2019), 'Prevention before cure – prioritising population health', Kings Fund, available at https://kingsfund.blogs.com/health_management/2019/03/prevention-before-cure-prioritising-population-health.html (accessed 27th January, 2020).

3. See, for instance, Grant, M. (2019), 'Healthy Planning', *Journal of Planning and Environmental Law*, Occasional Papers No. 47, pp. OP3–15
4. For a summary of the evidence, see Public Health England (2017), 'Spatial Planning for Health – an evidence resource for planning and designing healthier places', UK.Gov, available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/729727/spatial_planning_for_health.pdf (accessed 27th January, 2020).
5. Marmot, M. (2010), 'Fair Society, Healthy Lives – The Marmot Review', The Marmot Review.
6. NHS England leads the National Health Service in England, see <https://www.england.nhs.uk/about/about-nhs-england/> (accessed 27th January, 2020).
7. NHS England (2014), 'Five Year Forward View', available at <https://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf> (accessed 27th January, 2020).
8. NHS England (2019), 'Putting health into place', available at www.england.nhs.uk/ourwork/innovation/healthy-new-towns/ (accessed 27th January, 2020).
9. Town and Country Planning Association, see tcpa.org.uk (accessed 27th January, 2020).
10. The Kings Fund, see kingsfund.org.uk (accessed 27th January, 2020).
11. The Young Foundation, see <https://youngfoundation.org> (accessed 27th January, 2020).
12. Public Health England is an executive agency of government tasked with improving public health and well-being and reducing health inequalities. See www.gov.uk/government/organisations/public-health-england (accessed 27th January, 2020).
13. *Ibid.*, note 6. In particular, see Principle 1, 'plan ahead collectively', Principle 3 'connect, involve and empower people and communities', and Principle 8 'enable healthy play and leisure'.
14. NHS England (2019), 'The NHS Long Term Plan', available at <https://www.england.nhs.uk/long-term-plan/> (accessed 27th January, 2020).
15. 'Primary' healthcare refers to out-of-hospital care. Until now, this has usually been the patient's GP (doctor).
16. *Ibid.*, note 6. See Principles 9–10, 'develop and provide healthcare services'.
17. Place Alliance, see <https://placealliance.org.uk> (accessed 27th January, 2020).
18. Due to be launched in 2020, until when contactable via @qualityoflifeuk
19. UK.Gov (March 2019), 'National Planning Policy Framework', available at <https://www.gov.uk/government/publications/national-planning-policy-framework--2> (accessed 27th January, 2020).
20. Except in London, which has its own regional planning policy, the London Plan.
21. Department for Communities and Local Government (2015), 'Technical Housing Standards – nationally described space standard', available at <https://www.gov.uk/government/publications/technical-housing-standards-nationally-described-space-standard> (accessed 27th January, 2020).
22. The Place Alliance's Housing Design Audit for England (2020) provides evidence of how much new development is of a very poor quality. See <http://placealliance.org.uk/research/national-housing-audit/> (accessed 27th January, 2020).
23. Town & Country Planning Association (2018), 'Building Successful New Communities: lessons from the TCPA's New Communities Group', available at <https://www.tcpa.org.uk/new-communities-group> (accessed 27th January, 2020).
24. Town & Country Planning Association (2019), 'Campaign: The Healthy Homes Act', available at www.tcpa.org.uk/healthy-homes-act (accessed 27th January, 2020).
25. The Health Foundation (2019), 'UK risking fall in national life expectancy as social inequalities increase', available at <https://www.health.org.uk/news-and-comment/news/uk-risking-fall-in-national-life-expectancy> (accessed 27th January, 2020).
26. Public Health England (2019), 'PHE Strategy 2020 – 2025 – executive summary', available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/830105/PHE_Strategy__2020-25_Executive_Summary.pdf (accessed 27th January, 2020).
27. HM Government (2019), 'Industrial Strategy – building a UK fit for the future', available at <https://www.gov.uk/government/topical-events/the-uks-industrial-strategy> (accessed 27th January, 2020).
28. Greater Manchester Combined Authority (2015), 'Taking Charge of our Health and Social Care in Greater Manchester', available at <http://www.gmhsc.org.uk/wp-content/uploads/2018/04/GM-Strategic-Plan-Final.pdf> (accessed 27th January, 2020).
29. Institute of Health and Equity, 'Review of Health Equity in England – the Marmot Review 10 years on', will be published by the Health Foundation in February 2020.

The English planning system, the built environment and preventative mental healthcare: Identifying gaps in alignment and promoting integration

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Abstract Within the English planning system, there is increasing recognition that the quality of city-spaces and the built environment can have a direct and indirect impact upon the mental health of those who dwell within. It follows that urban planning, regeneration and renewal, and the well-designed places they strive to create, have a central role to play in preventative and rehabilitative mental healthcare. Nevertheless, the integration into planning policy and practice of mental health considerations remains in its infancy. An opportunity, if not an imperative, exists to accelerate and scale the dialogue. In support of this endeavour, this paper identifies the principal ongoing gaps in alignment between the English planning policy, place-making and mental health promotion and care, and signposts priority actions for improved integration.

Keywords: *mental health, built environment, planning policy, place-making, city renewal, National Planning Policy Framework (NPPF)*

INTRODUCTION

The English planning system is able to contribute positively to mental health outcomes. Depression is a common

mental disorder estimated to affect over 300m people worldwide, while an estimated 275m people suffer from anxiety disorders.¹ There is a diversity of

recognised risk factors for mental health issues; however, there is an increasing recognition within planning and health research of the relationship between the built environment and depression and anxiety. Planning considerations such as housing quality and design, access to open space, air and noise quality, access to healthy food, social cohesion and green infrastructure have all been associated with mental well-being.

While some consideration of mental health exists in English planning policy, it remains in its infancy. Despite a growing body of evidence and a clear need for greater integration of mental health within planning policy, no specific requirements exist for local authorities (LAs) to robustly consider mental health outcomes in the preparation of their plans. This lack of national policy is consistent with a lack of local-level policy on the topic. An exciting opportunity exists to strengthen the strategic prioritisation on mental health in the English planning system, overcoming barriers to integration and improving the living conditions in respect of mental health of people in England.

This paper begins with a brief narrative review of the evidence establishing this relationship. The paper then reviews the consideration of mental health within the English planning system in terms of national and local-level policy and the appraisal mechanisms that exist for policy creation. The paper intends to capture existing arguments for the need for mental health considerations in planning policy assessments, including for urban regeneration and renewal schemes, evoke discussion and identify areas for improvement. There are opportunities for further research within this field, and exploration into the planning system's lack of emphasis on mental health could prove valuable to the future of mental health in England.

MENTAL HEALTH AND URBAN PLANNING

Mental health problems are worryingly prevalent in English society, where it has previously been estimated that approximately one in six adults experience a common mental disorder such as anxiety or depression in any given week.² This issue is compounded by an underfunding of mental health services in recent years. In England, the Government spent approximately one tenth of the total health budget on mental health issues in 2017–18.³ Alongside treatment of mental health issues, the World Health Organisation (WHO) has long recognised the benefits of preventative measures which tackle determinants such as nutrition, economic insecurity and community networks and promote prevention at the level of policy formulation, legislation, decision making and resource allocation within the overall healthcare system.⁴

It is well recognised that the built environment is included in the long list of mental health determinants. In an intervention that speaks directly to urban regeneration and renewal projects, in 2011, Lederborg *et al.* found that city-living increased incidence of mood disorders by up to 39 per cent with an increase of up to 21 per cent for anxiety disorders, in comparison to the countryside, suggesting links between the urban environment and social stress processing.⁵ Studies have also found that variation in socioeconomic, physical and social neighbourhood factors are related to depressive and anxiety disorders, further emphasising the relationship between an individual's area of living and their mental well-being.

Among other issues, direct links between the built environment and mental health also exist with regards to housing design and land use.^{6–8} Studies have shown that the design of housing can have an impact on depression and anxiety. For

example, depression has been found to be higher for those living in areas where housing was characterised as ‘post-1969’, in flats above ground level where the front door opens onto a long corridor and a shared recreational space.⁹ Land use has also been found to affect depressive symptoms. Greater amounts of green space within a 1km radius around residents’ homes, for example, is significantly associated with a lower prevalence of anxiety and depression.¹⁰

As well as a determinant of mental health issues, the configuration of the built environment also offers possible solutions to mental health outcomes. The NHS Long Term Plan, published in 2019, focuses on a shift in UK healthcare from treatment to prevention.¹¹ Well-designed places can offer prevention and rehabilitation to issues such as anxiety and depression.¹² This may particularly be true in terms of urban regeneration, which often comprises strategic master planning which can consider many aspects of urban design. The benefits of effective placemaking to mental well-being is increasingly being recognised, and there is a growing desire for planning to play an effective and exciting role in combating mental health issues.^{13,14}

With many of the recognised indicators being material considerations within the English planning system, the utilisation of the built environment as a potential intervention for the reduction of mental disorders is widely recognised. Yet, while English planning is increasingly integrating health, including a recognition of the relationship between mental health and the built environment, it remains that few policies or recommendations for healthy urban environments currently address mental health in any depth. While mental health is becoming increasingly understood within planning, this remains in its early stages, with numerous barriers to be overcome.

Planning considerations

An overview of the English planning system

English planning is a multi-tiered system, whereby local government administers much of the planning system. The Planning and Compulsory Purchase Act makes clear that decisions under the Planning Acts should be made in accordance with a locally prepared development plan unless material considerations indicate otherwise.¹⁵ Development plans comprise local plans, the key documents which set out vision and framework for the future development of the area, as well as other adopted documents.

The National Planning Policy Framework (NPPF), first published in 2012, provides national planning policies for England covering the economic, social and environmental aspects of development. The policies in it must be taken into account in preparing local plans and, alongside National Planning Practice Guidance (NPPG) and other governmental publications, it is a ‘material consideration’ in deciding planning applications.

There is considerable flexibility for LAs within the initial stages of plan preparation.¹⁶ The evidence base is, however, required to include a range of impact assessments, which are carried out to make plans, policies, programmes, as well as subsequent projects more sustainable. These include Sustainability Appraisals (SA), Strategic Environmental Assessment (SEA), Environmental Impact Assessment (EIA), among others. Health Impact Assessments (HIA) are also used as part of, or alongside, Environmental Statements in the EIA process.

National-level and local-level policy

Prior to 2012, the English planning system did not have any specific guidance

on health. Following significant changes to the system, however, including the introduction of the NPPF, health became central to the sustainability objectives at the heart of planning. The NPPF stated three dimensions to sustainable development: economic, social and environmental, with the need to 'support communities' health, social and cultural well-being' under a social objective which remains in the updated NPPF.¹⁷

Specifically, Chapter 8 of the NPPF promotes 'Healthy and Safe Communities', stating that 'planning policies and decisions should aim to achieve healthy, inclusive and safe places'. This recognises the need to 'enable and support healthy lifestyles, especially where this would address identified local health and well-being needs'.¹⁸ To do this, planning policies created by LAs should aim to achieve healthy, inclusive and safe places which promote social interaction, are safe and accessible, and enable and support healthy lifestyles.¹⁹

Recognition of many aspects of the planning system's impact on health is also made. Requirements for health infrastructure and community services are present, and plans are required to take into account and support the delivery of local strategies to improve health. Plans are also required to assess the need for open space and sustainable transport and consider land density and design in development proposals due to their recognised impact on health. Additionally, local planning authorities are recommended to work with public health leads and health organisations in order to understand and account for the health status and needs of the local population when creating their development plans.²⁰

The WHO defines health as 'a state of complete physical, mental and social well-being'.²¹ No explicit definition of 'health' is provided within the document, however, with a singular reference to

mental health coming under the definition of 'People with Disabilities'.²² It should be said that this similarly applies to 'physical health', although three references are made to 'social and cultural wellbeing'. Where reference to health impact is made, no explicit link is provided to mental health.

With the NPPF acting as a framework within which locally prepared plans are produced, clarification is vital. Previous research has identified a lack of top-down policy as a barrier to health integration, and that policymakers may find mental health issues confusing and difficult to integrate.²³ An absence of explicit explanation of potential mental health benefits can therefore reduce the ability of LAs to plan healthy environments.

This can lead to a lack of frontline emphasis on mental health in the form of policies by which individual development proposals are assessed. As identified, numerous aspects of the built environment have mental health impacts; however, Local Plan and Core Strategy documents of the major English cities—for example, Birmingham, Bristol, Leeds, Liverpool, Manchester, Newcastle, Nottingham and Sheffield—contain reference to 'mental health' an average of roughly two times per document.^{24–34} A similar trend exists within the additional documents that comprise each authority's local development plans.

Where present, such references are limited to the relationship between mental health and green space. Four of the above-mentioned authorities note the importance of the green environment on mental health. Green policies vary from a provision of parks, open space and allotments, to planning developments next to waterways. Beyond green or green-related policy, however, there is limited further explicit application of evidence into policy. This lack of frequency among the plans does not explicitly demonstrate

a holistic consideration of mental health among the plans.

Plan and project appraisals

While explicit reference may not be made within planning policy to mental health, LAs may consider mental health during the preparation of the plan. For example, although Manchester City Council's Core Strategy document contains one reference to mental health, the Health Impact Assessment states that 'the predicted benefits from an increase in walking and cycling routes, reduction in crime and fear of crime, combined with the joint provision of green infrastructure may lead to improvements ... which are all likely to have a significant positive effect on physical and mental health'.³⁵ LAs are, however, granted 'considerable flexibility' in how they carry out the initial stages of local plan production, and issues of mental health may not always be captured.

The requirement for LAs to 'identify local health and well-being needs' in the preparation of the plan is stated within the NPPF,³⁶ although health is a wide and complex issue, and no specific strategic prioritisation of mental health is provided. A 2017 EU directive required SEAs to include a review of 'population and human health', although this has also been criticised for a lack of clear definition of 'health'.³⁷ Guidance for HIAs exist in several forms, which often provide a holistic consideration of mental health, recognising the impact of factors such as housing quality and design, access to healthcare and open space, air and noise quality and green infrastructure on mental well-being, although no statutory requirements exist. LAs are, however, required to work with health professionals and undergo statutory consultation with professional health bodies which may raise such issues.

There is evidence to suggest that mental health is not always considered in plan preparation. Carmichael *et al.* found in a case-study based review of plan and project appraisals that as far as EIA is concerned, key health issues such as levels of physical activity, mental well-being and health equity are rarely considered.³⁸ Furthermore, the IMEA argue that the endpoints of EIA analysis are changes in determinants of health, and should instead, where 'population and human health' is concerned, describe the predicted health and well-being outcomes.³⁹ In terms of HIAs, the review also showed precedent that while HIAs undoubtedly discuss broad health issues, the scope of is often limited in respect to physical activity, mental well-being, health equity and distributional effects, while environmental health issues figure greatly.⁴⁰

The extent to which and the manner of consideration of mental health within the local plan evidence bases can vary greatly. For example, Leeds City Council's 2018 Sustainability Report for their Core Strategy Selective Review does not contain any reference to mental health.⁴¹ Although Birmingham City Council's 2015 Sustainability Appraisal was carried out prior to the EU directive, a section is included on the topic of 'Population and Human Health', which considers issues such as life expectancy, healthy eating and levels of physical activity—but not, however, mental health.⁴²

On the other hand, Liverpool City Council's SA links issues such as housing, noise pollution and green infrastructure and mental health, while Newcastle and Manchester include mental health in their SA objectives.^{43–45} It should be noted that there are inconsistencies in how mental health is measured within the SAs, with Manchester City Council monitoring 'incapacity benefits for mental illness', while Newcastle City Council's SA recommends 'percent suffering from poor

mental health' as an indicator of health and well-being.

The review by Carmichael *et al.* was conducted in 2011, prior to the radical upheaval of the planning process, in which greater emphasis on health was provided; however, the findings remain consistent with the point. The review supported the existing view that significant differences in coverage in relation to health between local plans prior to 2012 were explained by a lack of top-down policy requiring health evidence to be produced, allowing considerable freedom for interpreting healthy planning at the local level.⁴⁶ Although requirements for health have increased generally, clarification over mental health is still required and gaps remain. Given the differences in mental health coverage between plans and a lack of embeddedness of mental health within the system as a whole, the requirement for top-down policy specifically for mental health also applies.

REFLECTION AND DISCUSSION

The above evidence demonstrates that while some consideration of mental health exists in English planning policy, it remains in its infancy, and no specific requirements exist for LAs to provide mental health evidence in the preparation of their plans. Furthermore, there is evidence of variation in the extent to which LAs consider mental health in local policy. Tewdwr-Jones has previously suggested that some authorities are 'forward-thinking'; however, in the absence of strong top-down guidance, authorities will not always necessarily include particular aspects of health in their evidence.⁴⁷

While changes to the NPPF have helped benefit health generally, barriers to health integration in planning exist. A Public Health England 2019 report identified that policymakers and public

health professionals believe a number of issues prevent health integration into planning policy.⁴⁸ These issues include, among others, that the existing evidence is not translatable into practice at the local level; there is a lack of resource and capacity at LA level; and there is a priority on the number of houses over impact on health. A lack of robust planning guidance or regulation and a lack of monitoring and evaluation of planning decisions were also identified.

This is particularly important considering that additional barriers to mental health integration exist. For example, McCay *et al.* suggest that mental health remains overlooked by city-makers due to a number of issues. Stigma may lead to a lack of knowledge or negative beliefs around mental health which may have an impact on its integration into policy; complexity exists in the form of factors including genetics, early experiences, family relationships and social settings that cannot be addressed through urban design; and low prioritisation can become a self-fulfilling prophecy, as a lack of visibility can cause a cycle of neglect in policymaking.⁴⁹ Given the complexity and breadth of the relationship between mental health and the built environment, it is possible gaps will exist in local policy, while some authorities may not consider it at all.

While bridging this gap will prove difficult, more can be done to embed mental health within the planning system in its current capacity. Some initial suggestions for this can be made. For example, scope exists for policy frameworks and plan appraisal mechanisms to be strengthened, ensuring mental health is considered within the plan making process. Explicit reference to mental health within the NPPF would mean that mental health evidence must be provided in order for a plan to be considered sound, as well as increasing visibility and

strategic prioritisation, further embedding the concept within the planning system. Further, EIA and public health processes will benefit from guidance which clearly defines the proportionate assessment of population and human health, which could include assessments of mental health impact.

OUTCOMES AND FUTURE RESEARCH

This paper has highlighted the need for further study in this area. The initial suggestions above would require investigation as to how policy frameworks could practically be improved; however, further opportunities could be researched as to how mental health policy can be incorporated into planning policies. For example, the strategic role of the recently created combined authorities can play in improving health outcomes. Further, the barriers to mental health inclusion at a local level and ways in which mental health policies can be better integrated into planning also require investigation.

This paper has argued that theoretical gaps exist in planning policy and frameworks which can lead to inconsistencies in the extent to which LAs consider the important issue of mental health. Initiatory evidence shows a theoretical weakness of the current framework, which presents an exciting opportunity to improve mental health outcomes through updated policy and frameworks. Evidence demonstrating the extent of the problem can, however, be improved. With the 2012 shift of the planning system as well as the 2017 EU directive on 'population and human health', an extensive and up-to-date study on LAs evidence bases would prove important.

Further, this paper has focussed on top-down planning policy. Although not in the scope of the discussion, a review of practical outcomes, such as the extent

to which mental health is considered in planning proposals and applications from a developer perspective, would prove vital.

CONCLUSION

An increasingly growing body of research demonstrates that many aspects of the built environment are associated with mental well-being. There is still much to be understood about the complex causal processes that shape mental health from a built environment perspective, yet there is no doubt that there is a growing awareness and acceptance of the need to consider the mental health impacts of development into planning policy and practice.

Although planning policy is, however, increasingly incorporating health generally, mental health specific considerations remain in their infancy. There are a number of barriers to achieving this, and further research is required to identify ways to break past this low prioritisation and examine appropriate mental health regulation in English planning policy. Embedding mental health within the planning system would help ensure that preventing mental health problems would be at the heart of the placemaking agenda, with English planning working alongside the NHS Long Term Plan focusing on prevention. There is no silver bullet to achieving this, yet with further nurturing and development, an exciting opportunity exists to improve the long-term mental health outcomes of the English population.

References

1. McManus, S., Bebbington, P., Jenkins, R. and Brugha, T. (2014), 'Mental health and wellbeing in England: Adult Psychiatric Morbidity Survey 2014', a survey carried out for NHS Digital by NatCen Social Research and the Department of Health Sciences, University of Leicester.
2. *Ibid.*, note 1.
3. NHS Confederation, 'NHS statistics, facts and figures', available at <https://www.nhsconfed.org/>

- resources/key-statistics-on-the-nhs (accessed 12th January, 2020).
4. World Health Organization (2004), 'Prevention of mental disorders: Effective interventions and policy options: Summary report', WHO, Geneva.
 5. Lederbogen, F., Kirsch, P., Haddad, L., Streit, F., Tost, H., Schuch, P., Wüst, S., Pruessner, J. C., Rietschel, M., Deuschle, M. and Meyer-Lindenberg, A. (June 2011), 'City living and urban upbringing affect neural social stress processing in humans', *Nature*, Vol. 474, No. 7352, p. 498.
 6. Brown, S. C., Mason, C. A., Spokane, A. R., Cruza-Guet, M. C., Lopez, B. and Szapocznik, J. (June 2009), 'The relationship of neighborhood climate to perceived social support and mental health in older Hispanic immigrants in Miami, Florida', *Journal of Aging and Health*, Vol. 21, No. 3, pp. 431–459.
 7. Weich, S., Blanchard, M., Prince, M., Burton, E., Erens, B. O. and Sproston, K. (May 2002), 'Mental health and the built environment: Cross-sectional survey of individual and contextual risk factors for depression', *The British Journal of Psychiatry*, Vol. 180, No. 5, pp. 428–433.
 8. Weich, S., Burton, E., Blanchard, M., Prince, M., Sproston, K. and Erens, B. (December 2001), 'Measuring the built environment: Validity of a site survey instrument for use in urban settings', *Health & Place*, Vol. 7, No. 4, pp. 283–292.
 9. Gong, Y., Palmer, S., Gallacher, J., Marsden, T. and Fone, D. (November 2016), 'A systematic review of the relationship between objective measurements of the urban environment and psychological distress', *Environment International*, Vol. 96, pp. 48–57.
 10. Sarkar, C., Webster, C. and Gallacher, J. (April 2018), 'Residential greenness and prevalence of major depressive disorders: A cross-sectional, observational, associational study of 94,879 adult UK Biobank participants', *The Lancet Planetary Health*, Vol. 2, No. 4, e162–173.
 11. NHS England (2019), 'The NHS long term plan', available at <https://www.longtermplan.nhs.uk/> (accessed 6th February, 2020).
 12. Ng, M. K. (2016), 'The right to healthy place-making and well-being', available at <https://doi.org/10.1080/14649357.2016.1139227> (accessed 6th February, 2020).
 13. Corcoran, R. and Marshall, G. (2016), 'Planning for well-being', *The Journal of Urban Design and Mental Health*, Vol. 1, No. 5, available at <https://www.urbandesignmentalhealth.com/journal1-planning4wellbeing.html> (accessed 6th February, 2020).
 14. McCay, L., Bremer, I., Endale, T., Jannati, M. and Yi, J. (2017), 'Urban design and mental health', *Mental Health and Illness in the City*, pp. 1–24.
 15. HMSO (2004), 'Planning and Compulsory Purchase Act', available at <http://www.legislation.gov.uk/ukpga/2004/5/contents> (accessed 12th January, 2020).
 16. Ministry of Housing, Communities & Local Government, 'Plan-making', available at <https://www.gov.uk/guidance/plan-making#evidence-base> (accessed 12th January, 2020).
 17. Ministry of Housing, Communities and Local Government (2019), 'National Planning Policy Framework', available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf (accessed 6th February, 2020).
 18. *Ibid.*, note 17.
 19. *Ibid.*, note 17.
 20. *Ibid.*, note 17.
 21. World Health Organization (June 1946), 'Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity', International Health Conference, New York, pp. 19–22.
 22. *Ibid.*, note 17.
 23. *Ibid.*, note 14.
 24. Birmingham City Council (2017), 'Birmingham Development Plan 2017', available at https://www.birmingham.gov.uk/downloads/file/5433/adopted_birmingham_development_plan_2031 (accessed 14th November, 2019).
 25. Bristol City Council (2019), 'Bristol Local Plan Review: Draft Policies and Development Allocations 2019', available at <https://www.bristol.gov.uk/documents/20182/34536/Local+Plan+Review+-+Draft+Policies+and+Development+Allocations+-+Web.pdf/2077eef6-c9ae-3582-e921-b5d846762645> (accessed 14th November, 2019).
 26. Leeds City Council (2014), 'Core Strategy 2014', available at <https://www.leeds.gov.uk/planning/planning-policy/adopted-local-plan/core-strategy-introduction> (accessed 14th November, 2019).
 27. Leeds City Council (2019), 'Core Strategy Selective Review Policies 2019', available at <https://www.leeds.gov.uk/Local%20Plans/Adopted%20Core%20Strategy/Consolidated%20Core%20Strategy%20with%20CSSR%20Policies%20Sept%202019.pdf> (accessed 14th November, 2019).
 28. Liverpool City Council (2018), 'Liverpool Local Plan 2013–2033: Pre-submission Draft January 2018', Available at <https://liverpool.gov.uk/council/strategies-plans-and-policies/environment-and-planning/plan-making-in-liverpool/current-local-plan-documents/local-plan/> (accessed 14th November, 2019).
 29. Manchester City Council (2012), 'Core Strategy 2012–2027', available at http://www.manchester.gov.uk/download/downloads/id/18981/final_core_strategy.pdf (accessed 14th November, 2019).
 30. Nottingham City Council (2014), 'Nottingham City Aligned Core Strategy: Part 1', available at <http://documents.nottinghamcity.gov.uk/download/1152> (accessed 14th November, 2019).
 31. Nottingham City Council (2020), 'Local Plan Part 2', available at <http://documents.nottinghamcity.gov.uk/>

- gov.uk/download/7574 (accessed 14th November, 2019).
32. Newcastle City Council (2015), 'Core Strategy and Urban Core Plan for Gateshead and Newcastle upon Tyne, 2010–2030', available at https://www.newcastle.gov.uk/sites/default/files/2019-01/planning_for_the_future_core_strategy_and_urban_core_plan_2010-2030.pdf (accessed 14th November, 2019).
 33. Sheffield City Council (March 2019), 'Sheffield Core', available at <https://www.sheffield.gov.uk/content/dam/sheffield/docs/planning-and-development/core-strategy/Core-Strategy---adopted-March-2009--pdf--6-55-MB-.pdf> (accessed 14th November, 2019).
 34. Sheffield City Council (2015), 'Citywide Options for Growth', available at <https://sheffield.citizenspace.com/place-planning/the-sheffield-plan-november-2015/> (accessed 14th November, 2019).
 35. Atkins (February 2011), 'Manchester City Council, Local Development Framework, Core Strategy Sustainability Report 2011', available at https://www.manchester.gov.uk/download/downloads/id/21698/sustainability_appraisal_report.pdf (accessed 12th January, 2020).
 36. *Ibid.*, note 17.
 37. Directive 2014/52/EU of the European Parliament and of the Council amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment. Official Journal of the European Communities 2017; L 124: 1–18
 38. Carmichael, L., Barton, H., Gray, S. and Lease, H. (March 2013), 'Health-integrated planning at the local level in England: Impediments and opportunities', *Land Use Policy*, Vol. 31, pp. 259–266.
 39. IMEA, 'Health in Environmental Impact Assessment: A Primer for a Proportionate Approach', available at <https://www.iema.net/assets/newbuild/documents/IEMA%20Primer%20on%20Health%20in%20UK%20EIA%20Doc%20V11.pdf> (accessed 12th January, 2020).
 40. *Ibid.*, note 38.
 41. Leeds City Council (2018), 'Core Strategy Review: Sustainability Appraisal, 2018', available at <https://www.leeds.gov.uk/Local%20Plans/Publication%20Draft%20Plan%20Supporting%20Documents/5.Sustainability%20Appraisal%20Draft%20Report%202018.pdf> (accessed 12th January, 2020); Although Leeds now have an inclusive growth strategy which is an overarching plan for the place (and which local plans/planning guidance needs to relate to and reference) which has health as its first priority and mentions mental health, see 'Leeds Inclusive Growth Strategy 2018–2023', available at <http://www.leedsgrowthstrategy.co.uk/wp-content/uploads/2018/06/Leeds-Inclusive-Growth-Strategy-FINAL.pdf> (accessed 12th January, 2020).
 42. Birmingham City Council (2015), 'Sustainability Appraisal of the Birmingham Development Plan, 2015', available at https://www.birmingham.gov.uk/download/downloads/id/5432/final_revised_sustainability_report_june_2015.pdf (accessed 12th January, 2020).
 43. Liverpool City Council (January 2018), 'Sustainability Appraisal incorporating Equality Impact Assessment and Health Impact Assessment of the Submission Draft Liverpool Local Plan', available at <http://consult.liverpool.gov.uk/file/4852536> (accessed 12th January, 2020).
 44. Newcastle City Council (September 2018), 'Sustainability Appraisal Environment Report', available at https://www.newcastle.gov.uk/sites/default/files/2019-01/newcastle_sa_environmental_report_final.pdf (accessed 12th January, 2020).
 45. *Ibid.*, note 35.
 46. *Ibid.*, note 38.
 47. Tewdwr-Jones, M. (2011), 'A review of the extent to which the spatial planning system supports the delivery of the government's health, wellbeing and social care objectives', Colin Buchanan and Partners Ltd, London.
 48. Chang, M., Petrokofsky, C., Stimpson, A., Gallagher, D., Lucitt, S., Aaltonen, G., Pilkington, P., Ige, J., Bird, E., Gray, S. and Mindell, J. (2019), 'Spatial planning and health getting research into practice (GRIP): Study report', available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/842840/Spatial_Planning_and_Health.pdf (accessed 6th February, 2020).
 49. *Ibid.*, note 14.