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Critical research impact: On making space for alternatives

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This paper argues for greater dialogue between critical research and research impact. With demands to demonstrate impact increasingly woven into the funding architectures of higher education, concerns have been raised that the UK Research Excellence Framework's impact agenda could adversely affect critical research, favouring instead research that more easily lends itself to societal uptake. Arguing that the threat to critical research is real but not inevitable, this paper draws from a review of impact case studies submitted to REF2014 to provide a perspective on what impact from critical research could look like, and the support required to encourage critical research within the UKREF Impact Agenda. Building on previous provocations to think about research impact differently, it is argued that impact can be conceptualised in ways that support critical agendas. Specifically, the paper identifies five modes of critical research impact: challenging policy; empowering resistances; platforming voices; nurturing new critical publics; and envisioning alternatives. These five modes signal potential for thinking about research impact in ways that support critical goals.

KEYWORDS

critical research, politics of knowledge, research impact, societal benefit, UK REF

1 | CRITICAL RESEARCH AND RESEARCH IMPACT: AN INTRODUCTION

Critical research – understood as research that foregrounds the contingency of knowledge, social structures, and relations – is often impassioned by desire for social change. Yet in challenging the status quo, critical research often faces a more complex and lengthy pathway to impact. This is in part because it rarely provides policy with easily adoptable solutions, more often foregrounding the complexity of policy issues, or problematising the assumptions on which policy is based. Working "against the grain" in this way makes traction within mainstream settings more difficult to achieve. As demands to demonstrate research impact are increasingly built into higher education funding and assessment architectures, concerns have been raised that the impact agenda could adversely affect critical and blue skies research. Despite stated commitments to understanding impact in broad terms (REF Steering Group, 2019; Stern, 2016), assessing impact could privilege applied research that lends itself more easily to societal uptake (Laing et al., 2018; Manville et al., 2015; Smith & Stewart, 2016). After reviewing these concerns, this paper draws on impact case studies submitted during REF2014 to propose five ways of conceptualising research impact on critical terms, and in support of critical agendas.

1.1 | Concerns around impact

Anxiety around the impact agenda has been expressed by critical scholars who highlight the increasing instrumentalisation of knowledge, the corporatisation of UK higher education, and the relationship between assessment metrics and neoliberalism (Gregson et al., 2012; Olssen, 2015; Pain, 2014; Pain et al., 2011). This has led to various degrees of resistance

towards the impact agenda based on two main concerns. The first concern is that focusing on research impact prioritises particular kinds of "safe research" (Linden, 2008), where impacts are quick and easy to demonstrate. For example, Laing et al. (2018, p. 178) found that most claims to impact within highly scoring REF2014 education impact case studies offered efficiency or improvements "in line with extant educational policies," with few demonstrating a legacy of critical social science. Seeking safety in the predictability of user uptake encourages research aligned to the status quo where uptake of findings is more likely.

The second concern is that it rewards particular types of researcher, especially academic elites (who have established reputations and influential networks) over early career or international researchers (Smith & Stewart, 2016). Gregson et al. further emphasise that the impact agenda succeeds in reorienting research by working through these researchers – "through academics' capacity to act as good neoliberal subjects by disciplining themselves" (2012, p. 344), governing their own conduct and internalising individualised pressures. These concerns are vitally important. The relationship between privileging demand-led logics in knowledge generation and neoliberalism is a concern that I advance elsewhere in the context of science-policy translation – where shaping knowledge for "users" facilitates knowledge uptake at the cost of reproducing hegemonic neoliberal policy interventions (Machen, 2018a).

1.2 | Doing impact differently

Yet, several scholars have highlighted opportunities for "doing impact differently" (Blazek et al., 2015; Chubb & Reed, 2018; Darby, 2017; Evans, 2016; Pain, 2014; Pain et al., 2011). Pain et al. (2011) have pointed to the way that Participatory Action Research (PAR) has prioritised working with non-academic partners to deliver societal benefits long before research impact became instrumentalised within academic assessments. They highlight the political imperative to reclaim impact in ways that build and support the kinds of research relationship we wish to have, and reflect the politically informed questions that drive our research (Pain et al., 2011). Rather than understanding impact as "striking a blow," Pain in particular argues for a feminist epistemology of impact that rethinks impact as a process of "walking together" (Pain, 2014; see also Evans, 2016). In parallel, Chubb and Reed (2018) argue that impact reminds us of our intrinsic motivations for research and our epistemic responsibilities as academics and to the public. They argue that re-engaging with these intrinsic motivations incentivises impact without external incentives (Chubb & Reed, 2018).

There is, nevertheless, a strange silence beyond PAR around what critical research impact might look like and the types of support that might be required. Indeed, as previously suggested, institutional and funder reassurances that not all research and not all researchers need to realise impact opens space for critical research only through exception, negation, or omission (Machen, 2018b). Whilst it is important to heed Back's warning that we should be alert to how our focus is being directed by the promise of a good impact case study, it is also important to question whether working with impact necessarily puts us, as Back (2015) suggests, "on the side of the powerful." As Cupples and Pawson (2012) remind us, there are always ways to perform critically within, or subvert, hegemonic frameworks.

This paper's interest in engaging with research impact in ways that support and enrich critical agendas is not naive to the circumstances through which demands for societal impact have arisen within higher education. Rather it embraces a political stance towards possibilities for reclaiming and remaking things, otherwise. Proactively engaging in questions of how critical research impact might be conceived, defined, and perhaps most contentiously, measured is imperative in ensuring that assessment frameworks do not squeeze out space for critical research. Although primarily discussing the UK context, where the "impact agenda" is being advanced through incorporating assessment of research impact into the six-yearly UK Research Excellence Framework (REF), demands for demonstrating research impact are growing internationally, notably in Europe, Australia, and Oman (Rand Corporation, 2019). Increasing international attention towards impact – evidenced through Science Europe's (2017) *Position statement on a new vision for more meaningful research impact assessment* and the launch of Inorms' Research Impact and Stakeholder Engagement Working Group (2017) – means these concerns are far from geographically bounded. Following this introduction, section 2 discusses tensions in the relationship between critical research and social change. Section 3 then unpacks the specific relationship between critical research and the UK REF. Section 4 explores what critical research impact could look like, proposing five possible modes of critical research impact: challenging policy; empowering resistances; platforming voices; nurturing new critical publics and envisioning alternatives. Section 5 considers what measures might be needed to support critical research within formal assessments of impact, before the paper is drawn to a close in section 6.

2 | ON BEING CRITICAL AND POSSIBILITIES FOR SOCIAL CHANGE

Open any book with the word "critical" in the title and there will (or should be!) an attempt to define what is meant by critical research, and what difference the adjunct critical makes. Summarising a number of these, critical research is about examining assumptions (Crampton, 2010), understanding objects of study not simply as given but as "products of social and political practices," and examining the ways in which naturalisation of these contingent relations reproduces structural relations of inequality (Jupp, 2006). A crucial characteristic is reflexivity – understood not only in terms of the researcher's role (Death, 2014) – but also as the collective process through which a scholarly community *interrogates* "*its own norma-tivity*" (Gregory, 1994, p. 10; emphasis in original), and problematises its own ways of knowing as well as those that are the object of research (Aradau et al., 2015). One of the most useful, comprehensive yet concise, definitions of critical research is provided in Crampton's introduction to *Mapping*, where he outlines the following basic principles of critique:

> First it examines the often unexamined grounds of our decision making knowledges, second it situates knowl-edge in specific historical periods and geographic spaces … third it seeks to uncover the relationship between power and knowledge; and fourth it resists, challenges, and sometimes overthrows our categories of thought. (2010, p. 16)

In summary, a critical approach illuminates the philosophical contingency of knowledge, of social structures, and relations. Critical thinking is "not satisfied to accept the prevailing ideas, actions, and social conditions unthinkingly and from mere habit" (Horkheimer, 1939, p. 270).

The relation between criticism and critical research, however, embodies tension. For on one hand, Crampton reminds us that critical research is not merely "a project of finding fault" (2010, p. 13) and does not necessarily imply that "things aren't good the way they are" (Foucault, 2000, p. 456, cited in Crampton, 2010, p. 13). Yet on the other hand, critical research often does find fault. And frequently finds commonality through both hope for social transformation (Blomley, 2006) and resistance towards existing configurations of power (Crampton, 2010). In this way, critical research explicitly becomes a "political practice of questioning and resisting … what we know in order to open up other ways of knowing" (Crampton, 2010, p. 15). As Marx infamously stated, rather than just interpret the world, "the point, however, is to change it" (cited in Loftus, 2009, p. 163).

This tension casts the relationship between critical research – opening possibilities for social change – and research impact – the realisation of societal change – into sharp relief. It also creates a challenging terrain for thinking about research impact, for, as Smith and Stewart (2016) remind us, the greater the potential social change (and impact), the more difficult that change will be to realise. The difficulties of this struggle are illustrated in the melancholy of the later Frankfurt School, whose critical social theory is an important influence on critical research today. Yet, the Frankfurt School also epit-omises early ambitions for research impact – being established outside of traditional academic walls (Rose, 1979/2014) and initially embracing hope that critical theory would "become a kind of public philosophy rather than yet another academic specialism" (Bronner, 2011, p. 115). It is in Horkheimer's discussion of the tension between being fault-finding and social transformation that we see most clearly why space for impactful critical research is so important:

> Criticism of what is prevalent … does not mean … that the philosopher complains about this or that isolated condition and suggests remedies. The chief aim of such criticism is to *prevent mankind from losing itself in those ideas and activities which the existing organization of society instils into its members*. (Horkheimer, 1939, pp. 264–265; emphasis added)

Reminding us of what is at risk in the absence of critical questioning, Horkheimer signals the way that a critical disposition may be understood as a constant reminder that what is is only a partiality of what might be.

3 | CRITICALITY AND REF

Radical forms of social change are not easily achieved within six-year assessment windows, nor well captured by under-standings of impact that centre on economic gain by actors already well represented within the current socio-political sys-tem. Yet, since widespread criticism over the types of public value that the Research Assessment Exercise (1986–2008) and REF (2008–present) were seen to reward, there has been emphasis on widening the scope of non-academic impacts within REF assessment guidelines. Following higher education institute objections to the predominantly economic definition

of social benefit that began to dominate impact discourses leading up to 2014, the Stern review of REF2014 levied criticism back at universities for interpreting impact too narrowly (Stern, 2016). Emphasising the breadth of possible impact claims under the definition of "an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia," Stern explicitly encouraged creative thinking in areas that were not well represented in REF2014 submissions (Stern, 2016). The guidelines for REF2021 continue this emphasis on breadth, in both type of impact and form of change envisaged (REF Steering Group, 2019). There is a clear opportunity for critical research here. Yet as UK Research and Innovation (UKRI) take over the portfolio of REF and of Impact, there is also a shift in the language being used, and the examples given, that could indicate a creeping back in of economically focused understandings of impact (see UKRI, 2018).

Taking seriously Pain et al.'s (2011) urge to reclaim and rethink research impact requires opening up these cleavages within REF for thinking impact differently and ensuring alternative visions for impact are well represented within assessment guidelines beyond 2021. Not doing so risks that assessments of impact simply reproduce hegemonic power/knowledge relations and, as Pain warns, foregoes the "opportunity for academics to challenge the unjust expression and effects of power through research" (2014, p. 20). Navigating this political terrain of research impact requires a strategic perspective around how research impact might be "done differently." Here, Pain's work provides an excellent springboard. Yet to fully explore how impact might be developed from critical research there is a need to map out different possible configurations between research, power, and politics beyond PAR. The next section goes some way towards starting this ongoing task.

4 | WHAT MIGHT CRITICAL RESEARCH IMPACT LOOK LIKE?

The typology shown in Figure 1 proposes five possible modes of critical research impact: challenging policy; empowering resistances; platforming voices; nurturing new critical publics; and envisioning alternatives.

These modes of critical research impact have been identified through working with the HEFCE REF2014 Impact Case Study Database during 2016. This openly accessible database of impact case studies that were submitted during REF2014 (available at: http://impact.ref.ac.uk/CaseStudies) provides an excellent resource for exploring how researchers are thinking about, and making claims for, impact from their research. As part of a wider institutional review of approaches to working with impact in 2016, I looked at how claims to impact from critical research were being grounded in submitted case studies. This was not a standalone piece of empirical research so is indicative, rather than systematic or exhaustive. However, using a mixture of keyword searches and reviewing the impact claims of case studies submitted to Unit of Assessment 17 (UoA17): Geography, Environmental Studies, a selection of case studies were chosen that explicitly claim to deliver impact from research that has a "critical" orientation – as outlined in section 2 of this paper. This subjective judgement was based on the research topic, impact goals, and nature of traction achieved.

The selection of critical research impact case studies (ICSs) shown in Table 1 below are illustrative of the types of critical research impact claims made. These claims were then categorised to form four out of five "modes" of research impact
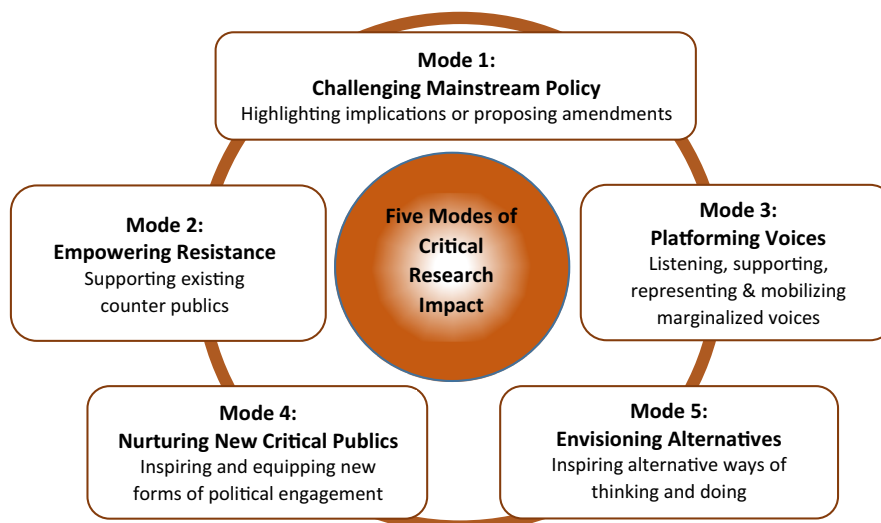
FIGURE 1 Five modes of critical research impact. [Colour figure can be viewed at wileyonlinelibrary.com]

TABLE 1 Examples of Impact Case Studies demonstrating impact from critical research (reproduced from REF2014 Case Study Database) with classification of Critical Research Impact Mode added.

	Case ID	Institution	Title	Summary of Impact	Critical Research Impact Mode	
1	11844	Durham University	Embedding participatory research in museum practice	Using Participatory Action Research with Tyne and Wear Archives and Museums Service to "further social inclusion and deepen participation from socially marginalised groups"	Platforming voices	
2	16774	University of Oxford	Shaping energy efficiency policy & the green deal and energy saving feed-in tariffs	"Demonstrating the shortcomings of recent changes to UK Government energy efficiency policy, and developed thinking about alternatives": Working with major environmental NGOs, researchers tabled an amendment to the 2012 Energy Bill	Challenging policy	
3	19870	University of Worcester	Wetland management and sustainable livelihoods in Africa	Research on local wetland management practices in East and Southern Africa, profiles local strategies for wetland management that "balances livelihood needs with the maintenance of ecosystem services." This research has been "taken up by the Ethio-Wetlands and Natural Resources Association in Ethiopia" and is "informing the wetland-livelihoods policy agenda of governments and NGOs"	Platforming voices	Empowering resistance
4	22926	University of Sheffield	Understanding social and spatial inequalities	Research by the Social and Spatial Inequalities (SASI) research group helps "analyse and visualise the trends, causes and consequences of social inequality." Claims to Impact focus around: (1) enhanced public understanding of inequality, (2) influencing UK policy, and (3) uptake within Geography curricula in schools	Nurturing new critical publics	
5	27040	University of Leicester	Delivering sustainability: natural resource management for social and ecological benefit	Research on "socio-ecological, culturally appropriate approaches to environmental governance" in the context of pastoralists' livelihoods in Mongolia has empowered "herders to communicate with government officials" and similarly in Kenya, "marginalised communities have gained improved water access" through rehabilitation of infrastructure, environmental education/capacity building and new sustainable development strategies	Platforming voices	Empowering resistance
6	28105	University of Manchester	Social significance and authenticity in heritage conservation and management	Research advancing "the social significance of the historic environment in heritage conservation and management in the UK" has been taken up by Historic Scotland and English Heritage in the areas of designation, management and preservation of historic sites in the UK	Empowering resistance	

(Continues)

TABLE 1 (Continued)

	Case ID	Institution	Title	Summary of Impact	Critical Research Impact Mode	
7	30230	Royal Holloway, University of London	Sustainability, biodiversity conservation and indigenous peoples: community-owned solutions to future challenges in the Guiana Shield, S America	"Development, adoption and dissemination of innovative 'community-owned' approaches to the sustainable management of social-ecological systems within the Guiana Shield region of South America." Foregrounding the role of indigenous, Amerindian communities in sustainable conservation policy and practice, working towards involving indigenous peoples in biodiversity science and sustainability policy and developing "community-owned" solutions that have shaped local, national, and transnational policy	Platforming voices	
8	30231	Royal Holloway, University of London	Hidden histories of exploration	Historical geography research at Royal Holloway has challenged the common narrative of the making of geographical knowledge as "the work of exceptional individuals (explorers) in extraordinary circumstances" and emphasises instead exploration as a collective endeavour – "making visible in particular the vital roles played by local people and intermediaries." Exhibitions, online resources, and school learning materials are changing the way that geographical knowledge is understood to foreground hitherto marginalised actors	Platforming voices	Nurturing new critical publics
9	35144	University of Northumbria at Newcastle	Changing the way we think about women and men in disasters: the Gender and Disaster Network	"Research disseminated through the Gender and Disaster Network (GDN) has changed attitudes and increased recognition of the importance of gender-insensitive disaster policy and practice." "GDN resources are used internationally by practitioners in the United Nations, national and local governments, and non-government and corporate business organisations, and gender analysis is now routinely incorporated in training for disaster management and risk reduction"	Challenging policy	Platforming voices
10	35155	University of Northumbria at Newcastle	The impact of Polish migrant worker research on policy and practice	Research into the experiences of Polish and European migrant workers contributed to "strategic decision-making of the Trade Union Congress … influenced policy at European, national and regional levels; … and supported individual Polish workers to access training, support and legal advice…"	Platforming voices	

(Continues)

TABLE 1 (Continued)

	Case ID	Institution	Title	Summary of Impact	Critical Research Impact Mode	
11	35284	University of St Andrews	Changing the way government identifies small areas of need and distributes funding in the UK and beyond	"Changing the way government identifies small areas of need." Research produced more accurate methods for measuring deprivation at the neighbourhood level (Index of Multiple Deprivation and Health Poverty Index – this "reshaped government policy and practice, leading to changes in where millions of pounds are spent"	Challenging policy	
12	36401	University of Exeter	"Follow the things": developing critical pedagogies to promote geographically informed and ethically aware consumption in schools	"Follow The Things" is a pedagogical approach to "appreciating the social relations and ethics of international trade" by "tracing the geographies of everyday things, discovering who made them, where and under what conditions." Its principal aim has been "to encourage and inform critical academic and public discussions of the ethics, (in)justices, and possible futures of international trade." This has "reshaped the teaching and learning of international trade in UK schools"	Nurturing new critical publics	
13	37180	The Open University	The impact of global environmental governance research on international forest policy discourse	Research on "the language and discourse used by key policy makers at the global level to frame, analyse and interpret international forest policy" has been shifted to reflect emphasis on the "international forest regime." Adoption of this language has changed "the attitudes, awareness and understanding of senior international forest policy makers … over the international politics of forestry governance and role of civil society"	Challenging policy	
14	39944	University College London	Peoples-based conservation: caring for Hinemihi, the Maori meeting house at Clandon Park, UK	The Peoples-based Conservation Project (PBC) has "challenged conventional heritage conservation practice to privilege a community's cultural systems over universalised concepts of heritage." This "led to new ways of understanding and teaching Conservation" and enabled "heritage conservation to address the social issues of the present and engage the future, rather than merely seeking to fix the past"	Challenging policy	Platforming voices

TABLE 1 (Continued)

	Case ID	Institution	Title	Summary of Impact	Critical Research Impact Mode
15	41439	University College London	Provision of data on freshwater acidification and recovery for monitoring and policymaking	The Acid Waters Monitoring Network and the Freshwater Umbrella programme have been used to: (1) set national thresholds …, (2) model and measure recovery …, (3) set new acidification standards for pollution …, (4) determine ecological status … and (5) guide upland forestry planting. This is being used by Natural England, Scottish Natural Heritage, Countryside Commission for Wales, and UK Forestry Commission	Empowering resistance
16	42011	University College London	Illuminating the black presence in London before 1948	"Research on the black presence in London … was incorporated into the London, Sugary and Slavery Gallery (LSS), which opened at Museum of London Docklands (MoLD) in November 2007 and remains the only permanent gallery on slavery in a London museum … [It develops] a new narrative of London's historical relationship with enslavement … and new discussions of London's history"	Platforming voices

presented in Figure 1. The fifth category was later added based on identification of a further mode of critical research impact not represented within the UoA17 search, but seen in units of assessment beyond UoA17. A summary of the self-reported impact claims of each ICS – paraphrasing or quoting language from the respective ICS report templates – is shown together with my classification of modes of critical research impact.

Four clear modalities of thinking about impact from critical research are identifiable that resonate with wider tacit understandings of what impact from critical research might look like. Each is discussed further below:

4.1 | Mode 1. Challenging mainstream policy

Research into the implications of existing policies (or policy proposals) on particular groups, geographies, or concerns can be mobilised to challenge mainstream policy directly or to argue for policy amendments. The UK Government's guidance for policy evaluation (Magenta Book) in principle endorses the need for critical approaches that unpack the assumptions underlying policy analysis. Policy traction is most likely where such concerns are demonstrably under-registered within the policy-making process. The ICSs in Table 1 that are classified as "challenging policy" demonstrate their critical character through language such as "Demonstrating the shortcomings" of UK Government energy efficiency policy, encouraging "thinking about alternatives" (ICS 16774: University of Oxford), or achieving "changed attitudes and increased recognition of the importance of gender-insensitive disaster policy and practice" (ICS 35144, Northumbria University). Case studies drawn from outside UoA17 also provide a useful supplement, illustrating potential for more radical policy and legal change. A prominent example is "The struggle for material democratisation: contributing to the defence of essential water and sanitation services in Latin America" (submitted to UoA23 Sociology by Newcastle University (2014)). Here, research on the neoliberal privatisation and commodification of water and sanitation services in Brazil secured legal and policy change, including establishment of Brazil's first National Basic Sanitation Law and Plan for Basic Sanitation.

4.2 | Mode 2. Empowering resistance

Sometimes uptake of research findings occurs not by the mainstream public policy-making team itself but by organisations, partnerships, or coalitions with an existing degree of policy standing, who champion alternative discursive positions – communities that Felski (1989) and Fraser (1990) have termed "counter publics." For these organisations – often NGOs, charities, or

issue-specific coalitions – critical research can play an important role in strengthening their discursive position and providing an evidence base for specific campaigns or policy challenge. Examples of this mode can be seen in the ICSs highlighted in Table 1 that illustrate the ways in which research supports the work of existing policy actors who are working towards particular policy change goals (e.g., ICS 19870 University of Worcester, or ICS 28105, University of Manchester). In these cases, research findings offered non-governmental organisations and non-departmental public bodies new knowledge, tools, or arguments that can be mobilised within existing institutional/discursive settings. An example involving more radical counter public discourses can be seen in the ICS "Questioning the 'financialisation of nature': influencing international policy thinking on biodiversity conservation" (Birkbeck College, 2014) submitted to UoA23. This case study drew from research demonstrating that biodiversity discourses are becoming dominated by financial assumptions and understandings of biodiversity "assets" that create forms of property, which are being taken over by elites. This research was used by environmental advocacy organisations (Green House, Third World Network, and Green Economy Coalition) to show how current environmental policy may intensify socio-economic inequality and biodiversity loss (Birkbeck College, 2014).

4.3 | Mode 3. Platforming voices

The act of listening to, supporting, representing, or mobilising marginalised voices is often exemplified within PAR, where researchers often work to foreground under-represented voices, collectively build research that responds to challenges identified by non-academic communities (Durose, 2012), and develop opportunities for marginalised groups to represent themselves within socio-political processes and arenas. Inspired by, and infused with, passions for social and/or environmental justice, these forms of research often easily lend themselves to the pursuit of tangible changes, benefits, and preventions of harm beyond academic walls. In some cases, claims for impact are outcome-based – for example, Lancaster University's Research Catalyst Programme, which brings academic researchers and communities together to define digital technology problems and then funds citizen-led innovation of digital tools for social change (see http://wwwcatalystproject.org.uk). In others, claims for impact develop as much from the process of working together (Pain, 2014). This mode is identifiable in the language of ICSs that seek to "empower Mongolian herders" (ICS 27040: University of Leicester), represent Polish migrant worker experiences (ICS 35155: Newcastle University) and develop new narratives of London's historical relationship with enslavement (ICS 42011, UCL). Beyond UoA17, "'The Cambridge Project' empowering gypsy/traveller communities through collaborative participation action research" (Buckinghamshire New University, 2014), submitted to UoA3 Allied Health Professions, Dentistry, Nursing and Pharmacy, offers a strong example. Gypsy and traveller communities were first empowered (as interviewers) to identify their own needs, and researchers then mobilised these "hitherto invisible" needs within UK policy to develop new datasets and statutory guidance on housing assessment needs.

4.4 | Mode 4. Nurturing new critical publics

The fourth mode for critical research impact is the development and/or mobilisation of new critical publics. Offering new forms of understanding, and transformational threshold moments in learning (Meyer & Land, 2005), critical research can inspire citizens to become politically engaged, and/or provide skills, tools, and confidence for political participation. One prominent focus has been working with schools, which Gregson et al. suggest can help to reclaim critical praxis and constitute new critical subjects (2012). An excellent example is ICS 36401: "'Follow the Things': developing critical pedagogies to promote geographically-informed and ethically-aware consumption in school geography curriculum" (Exeter University). This offered an innovative pedagogical approach for examining the social relations of international trade, and the politics of consumption within schools and universities. Beyond formal education systems, Roberts and Escobar have used Citizen's Juries – a panel of non-specialists who meet recurrently over a significant period to examine carefully an issue of public significance. Although not yet an impact case study, this has provided a space through which citizens are brought together to learn, reflect, and then influence the policy process (Roberts & Escobar, 2015). As digital technologies and social media increasingly curate audiences, there are opportunities to think about the role of these media forms in fashioning, politically engaging, and/or mobilising critical publics.

In addition to these four modes identifiable within UoA17, it is possible to add a fifth way of thinking about critical research impact.

4.5 | Mode 5. Envisioning alternatives

Some forms of critical research construct, circulate, or otherwise enable, possible alternative imaginaries, courses of action, or future states. Research in this vein may be explicitly normative, or may provocatively or subversively carve out space

for others to imagine and construct the very alternatives that excite criticality in the first place. Examples of this mode often take an artistic form – such as ICS 40329 "Art as an agent for change in the work of Professor Lucy Orta" submitted to UoA 34 "Art and design: history, practice and theory," in which art installations move beyond artistic commentaries "to creating active engagement and suggesting solutions by modelling fresh approaches to … social and environmental dilemmas" (University of the Arts London, 2014).

Examining what impact from critical research looked like in 2014 illustrates the diversity of ways of thinking about impact from critical research already being developed within geography. It also signals the merits of looking beyond UoA17 to case studies from Sociology, from Art and Design, and Health, as comparators that illustrate even stronger scope for criticality, and introduce a fifth mode of thinking about critical research impact for consideration within geography.

5 | MAKING SPACE FOR CRITICAL RESEARCH IMPACT

Bypassing discomfort around the simplification effects of a typology, this approach has highlighted diverse possibilities for thinking about impact from critical research that encourages more complex and nuanced discussion. In opening space for greater dialogue between critical research and research impact, it is important to ask whether these processes of working towards impact are different from any other form of research. Put differently, does critical research require any specific forms of support or provision within assessment frameworks, to ensure that it is well represented within the portfolios of research put forward? To counter any tendency for the impact agenda to squeeze out critical research, I argue that both assessment frameworks and institutional expectations need to account for the following.

5.1 | Increased challenges around evidencing impact

Direct policy citation of critical research findings may be rare and in some cases may be actively unhelpful to the generation of impact. This poses three difficulties in evidencing critical research impact beyond the need to recognise that research is only ever one contribution in policy change (Morton, 2015). First impact from critical research will often develop through what Pain et al. have called a "more diverse and porous series of smaller transformative actions that arise through changed understanding among all of those involved" (2011, p. 187). Such changes in discursive framing are often successful by becoming owned, appropriated, and internalised by practitioners themselves. For the policy maker – sometimes an institutional activist (Santoro & McGuire, 1997) – these shifts (and backtracks) in policy direction may also need to be secured incrementally and unobtrusively as putting such changes under a spotlight in the search for attribution can generate opportunities for attack from powerful competing advocacy groups. This makes the process of evidencing potentially detrimental to the attainment of impact itself. Second, impact may be achieved through researchers being involved in ways that are not recorded – making testimonials vital (as in ICS 28105 from Table 1). Evidencing these subtle policy amendments, and changes in discourses and grey literatures, may require a portfolio of evidence forms, including testimonial narratives, longitudinal discourse analysis, personal correspondence, and access to draft versions of meeting minutes/internal team discussions, which may need to be combined in complex ways for the case for impact to become robust. Obtaining these forms of evidence is labour intensive and maintaining flexibility around a diversity of qualitative evidence forms is vital to the articulation of impact claims. Third, these forms of research and types of evidencing often rely on long and trusting working relationships far beyond the period of any research project. Blunt and instrumental forms of evidencing may not be in the interests of sustaining or developing these long-term relationships. Moves towards greater recognition of the role played by broader academic reputational expertise and interpersonal relationships beyond specific research outputs may be helpful; however, assessments of impact need to understand these challenges and the risks that evidencing may pose to the uptake of critical research findings.

5.2 | Maintaining flexibility between significance and reach

Attaining critical research impact may rely on working with alternative and marginal organisations that may be smaller and/or more local in reach than the mainstream "big-movers" of national or international policy. From Table 1, ICS 11844: "Embedding participatory research in museum practice" (Durham University) and ICS 3994: "Peoples-based conservation: Caring for Hinemihi" (UCL) both illustrate research impact with higher levels of significance, comparative to reach. Assessing impact in terms of both significance and reach independently is important for supporting diversity in the types of impact pursued. Privileging one above the other, or assessing these measures jointly, could disadvantage certain forms of critical research.

5.3 | The need to work with longer timeframes

Changing the terms of any debate is difficult to achieve and rapid easy wins are unlikely. Critical research impact may therefore develop, materialise, or be able to be evidenced over longer timeframes that crosscut assessment periods. For example, working with election manifesto writers may achieve changes in policy direction that materialise during the next policy cycle, and evidencing discursive shifts may rely on longitudinal studies that exceed even the longer 20-year research window. Greater flexibility in assessment periods could benefit critical forms of impact.

6 | CONCLUDING THOUGHTS

Love it or loathe it, research impact is likely to remain part of future assessments of research excellence in the UK, and is increasingly important internationally (Smith & Stewart, 2016). This paper advocates adopting a proactive stance towards reclaiming research impact in ways that advance critical research agendas. In doing so the productive tensions between critique and social change within critical research have been discussed and a number of possible modes for achieving critical research impact have been identified. While the reality of realising impact is often messy, and unpredictable, embracing a proactive approach to impact enables critical researchers to develop a clear and politically informed stance towards the relationship between science and policy, and a clear sense of the type of impact desired, and with whom. This can work in the service of critical research agendas, as well as that of impact.

The importance of attending to how critical research and impact might interact lies not only in exploring possibilities for developing impact in critical ways, but also in ensuring that future assessments of research – attuning our research attention as they do – do not advertly or inadvertently squeeze out space for critical research. Pain et al. (2011) suggest that research impact boils down to power, participation, and potential. To engage with their provocation one last time, this paper has sought to engage with these three "p's" by outlining four ways in which impact from critical research might be conceived that do not foreclose the type of political stance that research might have. Challenging policy, empowering resistances, platforming voices, nurturing new critical publics, and envisioning alternatives are five ways of conceptualising the relationship between academic research and non-academic communities that can support and enrich critical agendas. In doing so, these five modes foster possibilities for engaging with the impact agenda in ways that do not rely on exception, negation, or omission, but instead embrace different forms of participation, enact diverse relations with power, and promise yet uncharted potential.

DATA ACCESSIBILITY

Data supporting the results reported in this paper are openly available from REF2014 Impact Case Study Database at https://impact.ref.ac.uk/casestudies/Search1.aspx.

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