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**‘SOCIAL IMPACT AS “RITUALS OF VERIFICATION” AND THE CO-
PRODUCTION OF KNOWLEDGE’**

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ABSTRACT

Thinking about and operationalizing societal impacts have become defining characteristics of university-based research, especially in the UK. This paper reflects on this unfolding shift in the conceptualization and practice of research with particular regard to criminology. It traces the development of new regulatory regimes that seek to measure research performance and render impact auditable. It argues that these ‘rituals of verification’ engender instrumental and narrow interpretations of impact that accord less space to research-informed social change as a non-linear and uncertain endeavour. This is juxtaposed with a conception of societal impact rooted in methodologies of co-production. Insights from the UK Research Excellence Framework 2014 and 2021 inform discussions and are contrasted with collaborative research efforts to apply co-production in policing research.

KEYWORDS

societal impact – audit - performance measurement - REF - co-production – intellectual humility

Scholars have long reflected on the purpose of knowledge. From Marx's declaration that 'Philosophers have hitherto only interpreted the world, in various ways; the point is to change it' (1845/1992: 423) to Lynd's (1939) interrogation of 'knowledge for what?', many have been motivated by a desire to effect social change beyond intellectual thought. From this standpoint, not only is knowledge intimately tied to a public purpose, but additionally, there is a moral imperative upon those invested in knowledge production to harness it to such ends. This normative commitment to public social science has been rearticulated in recent years by those advocating a 'public sociology' (Burawoy 2005) and its variants. As an applied discipline, criminology evinces a driving focus on utility and purpose, reflecting a wider 'reformist impulse' that draws criminologists to their chosen field (Loader and Sparks 2011: 6). For many criminologists, preventing or minimizing the harms inflicted by crime and the pains of criminal justice in ways that beneficially affect people's lives constitutes a compelling rationale and personal motivation. Moreover, crime and criminal justice are fundamentally political, in that they are entangled with values (Cohen 1996); prompting questions about not whether we should take sides, since we inevitably will, but rather 'whose side are we on?' (Becker 1967), as well as reflections on the way the world is, how we find out about it and how we assume responsibility for our interventions and influence within it. For McAra (2017: 785), the resultant criminological 'praxis' is not possible 'without combining the role of problem raiser and problem solver and without consciously constructing the opportunities to negotiate and influence'. Precisely because of its obvious connections with reform and social improvement, criminology might legitimately be viewed as a field of enquiry that is well placed to respond to and benefit from a renewed focus on societal impact. Yet, to date there has been surprisingly little concerted discussion amongst criminologists about societal impact and the ways in which it has been both manifested in governmental regimes of regulation and differently advanced through research practices (cf. Hillyard *et al.* 2004; McAra 2017).¹

While it has long been the mission of a university to generate positive impacts on society, the notion of 'societal impact' has come to infuse debates about research. In the UK, the impact agenda has become the veil of a new governance narrative in which a particular epistemology and understanding of the utility of knowledge has become a commanding political imperative

¹ Unlike other cognate disciplines, such as sociology (Holmwood 2010; Savage 2010; Back 2015), social policy (MacDonald 2017), politics and international studies (Dunlop 2018) and geography (Pain *et al.* 2011; Slater 2012).

tioned to the justification of public funding. It represents ‘a radically new point of inflexion in the mission of UK universities’ (Power 2015: 48). Planning for and operationalizing societal impact have become defining characteristics of contemporary research in universities – especially (but not exclusively) in the UK. This paper reflects on the forces behind, and implications of, this unfolding shift in the conceptualization and practice of research. It traces the development of new regulatory regimes that seek to measure research performance and render societal impact auditable. It argues that these ‘rituals of verification’ engender instrumental and linear interpretations of utility that accord little space to research-informed change as a complex, non-linear and uncertain endeavour. The paper juxtaposes this with a conception of societal impact rooted in methodologies of co-production. In so doing, it engages with the place of and implications for criminology in such debates.

The paper is organised in four parts. The first sets out the background debates and shifting terrain over the last quarter of a century regarding knowledge production and the role of universities therein. The second part reflects on the regulatory practices of audit and the conceptualization and assessment of impact associated with the Research Excellence Framework (REF) in the UK. The third part outlines and reflects upon the very different conceptualization of societal impact and the practices to which it gives rise offered by those advocating a methodology and philosophy of co-production. The final section considers the implications of such divergent interpretations and performances, what they mean for each other and their implications. The paper concludes by questioning the extent to which co-produced research is capable of being rendered ‘auditable’, exposes the limitations of dominant readings of impact and/or is likely to be undermined by such forces. In so doing, it offers some reflections on the implications for criminology as a field of enquiry.

My purpose is not to argue that performative quests to measure research impact are inescapably corrosive, nor that co-production always produces better quality research that is more likely to be acted on. I wish to use the two analytical focal points – impact assessment and co-production – to consider fundamental questions about knowledge production, its value and application and, hence, about the connections between what we know and how we know it. These have attendant links between knowledge, power and culture. Both are examples of emergent practices, infrastructures and technologies with associated rationalities for cultivating societal impact, albeit differently conceived. They provide insights into different but interconnected processes in making institutions, identities and representations; and hence,

in knowledge making. Furthermore, they prompt questions about the role, ethics and praxis of (criminological) researchers within the matrix of governing narratives and everyday practices.

The paper draws upon my own direct experiences in a number of ways. The discussion of impact in the REF is informed by personal involvement in both preparations for and the assessment phase of REF2014, as well as ongoing preparations for REF2021. This has taken three distinct guises: first, in my capacity as a subject of assessment - or 'auditee' - and author of an impact case study submitted to REF2014 and case studies in preparation for REF2021; second, in my role as a university research manager – or 'institutional auditor' - responsible for overseeing the submission of four Units of Assessment (UoAs) to REF2014 and University-wide Review Panel member for REF preparations across Main Panel C (broadly covering the social sciences); third, as a subject assessor – or 'national auditor' - in my capacity as Law panel member (and sole criminologist) for REF2014 and REF 2021. These insights are supplemented by my very different experiences of leading a large collaborative research and knowledge exchange programme designed to translate methodologies of co-production in the context of policing, through the N8 Policing Research Partnership (N8PRP); an alliance between the universities of Durham, Lancaster, Leeds, Liverpool, Manchester, Newcastle, Sheffield and York together with 11 police services and associated Offices of the Police and Crime Commissioners (PCCs) in the north of England, together with other community safety stakeholders.²

Methodologically, the hours spent between 2012 and 2019 in university REF management meetings, formal REF panel deliberations and N8PRP gatherings have provided opportunities for rich and 'deep' reflection and observation. As a REF panel member I remain bound to confidentiality with regard to specific decision-making and deliberations within the panel. Hence, these are not discussed here, unless otherwise already reported in the public domain. While my role within the practices and performances explored here provide intimate insights, it also casts limitations by way of possible selectivity and biases. In what follows, I hope to rise above personal anecdote and subjective assertions to explore the broader conceptual issues at stake. By shedding light on the ways in which impact is conceived and operationalised both in regimes of governance (from above) and in routine research practices

² See: www.n8prp.org.uk/

(from below), it is hoped that the insights provided have wider salience for criminology and the social sciences more broadly.

THE CHANGING PRODUCTION OF KNOWLEDGE

Twenty-five years ago, Gibbons and colleagues (1994) argued that the production of knowledge and the process of research were being radically transformed. According to their thesis, the traditional paradigm of scientific discovery - what they rather inelegantly describe as 'Mode 1' - was being superseded by a new paradigm of knowledge production ('Mode 2'). Whereas Mode 1 is characterised by the dominance of experimental science, an internally-driven taxonomy of disciplines and the autonomy of scientists and their host institutions (universities), Mode 2 is 'socially distributed, application-oriented, trans-disciplinary and subject to multiple accountabilities' (Nowotny *et al.* 2003: 179). Broadly, Mode 1 is a summary of ideas, methods, values and norms that have grown up to organise and control science as a form of knowledge production; the cognitive and social norms that it is deemed need to be followed in the production, legitimation and diffusion of scientific knowledge. One of the characteristics of Mode 2 is that traditional boundaries between production and application are collapsed: knowledge production 'is carried out in a context of application' (Gibbons *et al.* 1994: 3). Contrasts between Mode 1 and Mode 2 are intended to highlight transformation and difference (see Table 1), not to suggest that practitioners of Mode 2 do not behave in accordance to the norms of scientific method. The latter are not supplanting but supplementing the former. Furthermore, no normative judgement is made as to the value of the trends they describe; whether these are to be encouraged or to be resisted.

Table 1: The New Production of Knowledge

	Mode 1	Mode 2
<i>Context</i>	Problems set and solved in a context governed by interests of a - largely academic - community.	Knowledge generated in the context of application involving close interaction of many actors
<i>Disciplinarity</i>	Traditional (mono-)disciplinary framework	Transdisciplinary
<i>Characteristic</i>	Homogeneity	Heterogeneity and organisational diversity
<i>Organisational form</i>	Hierarchical and tends to preserve its form	Non-hierarchical – heterarchical - heterogeneously organised forms which are transient
<i>Creativity</i>	Individual creativity is driving force of development	Collective, individual contribution is subsumed within a group process
<i>Location</i>	Traditional institutions: Universities, government research establishments, corporate laboratories	Socially dispersed: More players have joined the ‘research game’
<i>Quality control</i>	Internal, peer review with narrow criteria of quality.	Socially accountable and reflexive – incorporates a diverse range of interests and uses a wide range of criteria in judging quality.

(Compiled from Gibbons *et al.* 1994; Nowotny *et al.* 2003)

In light of mass higher education, not only have the numbers of knowledge producers increased, but so too have the range of sites where competent research is being performed. In this context, knowledge is socially distributed in ways that challenge the taken-for-granted disciplinary structures of modern universities. Mode 2 knowledge is focused on problems not disciplines. In mapping this transformation, Gibbons and colleagues highlight three pivotal drivers: first, the increasing political desire to ‘steer’ research priorities; second, the growing commercialization of research, which has seen greater awareness of the value of ‘intellectual property’ generated by research; and third, the accountability of science through efforts to

evaluate its effectiveness and assess its quality. Each warrants detailed consideration of the ways in which they have influenced criminological research – to which some have focused attention (Walters 2003; Hillyard *et al.* 2004). Here, I concentrate on the latter. In many senses, the rise of the impact agenda within universities and co-production as a research ethos both largely fit within the broad umbrella of ‘Mode 2’ knowledge production. Yet, in their application and translation in practices, they are awkward bedfellows. I explore the operational correspondence of both – their points of convergence and departure – as a way of trying to make sense of some of the diverse pressures upon and implication of societal impact for criminological research.

The Rise of Impact as Auditable Performance

As prescient as Gibbons and colleagues’ arguments were, the subsequent transformation of knowledge production has been by no means sudden or prodigious. Nonetheless, governments across Europe have ‘intensified their explicit demands for societal impact from universities in general, and from research in particular’ (van den Akker and Spaapen 2017: 3). This has largely focused upon impact beyond the academy. It has reflected what Neave (1988) discerned as ‘the rise of the evaluative state’ and Power (1997) termed the ‘audit society’. While much analysis has focused on the distinctive system of British regimes of governance - described by Bevan and Hood (2006) as combining ‘targets with an element of terror’ - audit cultures are by no means unique to the UK context (Strathern 2000). In the UK, governmental steering by setting priorities as to how public funding in universities should be spent had long existed, what began to emerge was an infrastructure for monitoring compliance through a ‘clear shift towards a posteriori evaluation’ (Neave 1988: 9).

Attempts to assess research quality in British universities were first introduced in 1986.³ From the outset, the exercise was linked directly to the distribution of government funds via block grants for research. It presents an unambiguous example of auditing allied to public funding, in which ‘the rhetorics of auditability, measurement and accountability are intertwined’ (Power 1997: 100). Through these ‘rituals of verification’ – which for Power (2003: 199) represent ‘empty certificates of comfort’ largely designed to appease fraught and anxious politicians - assessment and accountability shifted from the domain of professional and collegial responsibility to the arena of managerial competence. As in other areas of

³ Periodic UK Research Assessment Exercises were held in 1986, 1989, 1992, 1996, 2001 and 2008, before the introduction of REF in 2014.

auditing, distrust in professional judgement has been replaced by attempts to vest uncritical trust in the efficacy of audit processes. In the context of research, the resulting ‘inspecting gaze... has shown an increasingly impressive capacity to inspect and judge individuals – something rarely achieved in other parts of the new regulatory state’ (Moran 2003: 142). Nonetheless, the reception of the audit regime has been both critical and mixed, engendering a dynamic of ongoing re-appraisal, adaptation and volatility, albeit within the same ‘iron cage of auditing’. Yet, these audit rituals rest upon certain core assumptions. First, they assume that measurement can adequately represent performance in ways that minimise perverse effects. Secondly, they presuppose that ‘game-playing’ either does not occur or can be kept to some acceptably low level. Both have proved to be unstable and problematic. Moreover, the effectiveness of audit, in shaping institutional behaviour and organizational culture, depends on the extent to which it either ‘colonizes’ or is ‘decoupled’ from the environment that it seeks to regulate and control. Yet, a key feature of research assessment has been its ‘almost total capture by the traditional academic elite’ (Moran 2003: 142), largely through adherence to the principles of ‘peer review’ - the traditional mechanism of scientific verification. Particularly in the UK, peer review has been upheld as the only mechanism that carries sufficient confidence within the academic community. Over time, the ‘terror’ induced by subsequent assessment exercises has come to rest as much in the reputational implications of league tables and inter-institutional competition, as it does in the financial outcomes in purely monetary terms.⁴

An intensifying criticism of the early research assessment exercises - and public management reforms generally - was that they accorded greater value to ‘outputs’ rather than ‘outcomes’. By the turn of the millennium, it was increasingly recognised that research assessment exercises (which gathered intensity) had significantly influenced institutional cultures and individual behaviour with regard to research publications. However, this largely expressed itself through greater pressures to publish and the proliferation of academic publishing outlets. Consequently, one of the outcomes of the auditing culture was a perception that higher education was becoming more self-contained, self-referential and less committed to externally defined social purposes. Thus, the seeds of the impact agenda were sown by the (unintended effects of the) regulatory processes themselves, which thereafter saw a shift in

⁴ The explicit strategy of some institutions in REF2014 was to accord priority to reputational rewards over financial returns.

focus from measurable outputs to the value of harder to measure outcomes in the form of societal impacts.

Internationally, Australia was first to experiment with the idea of impact assessment in its Research Quality Framework (RQF). Subsequently abandoned on the eve of its implementation - due to a change of government in snap elections in December 2007 - nonetheless, much developmental work had been undertaken and an 'optimal methodology for assessing research impact', in the form of narrative impact case studies was published (Grant *et al.* 2009). Interestingly, in scrapping the RQF, the incoming Labour government claimed it to be 'poorly designed, administratively expensive and relies on an "impact" measure that is unverifiable and ill-defined' (Williams and Grant 2018: 97). However, a decade later, in a subsequent *volte face*, the Australian Government announced the development of an Engagement and Impact assessment framework to 'examine how universities are translating their research into economic, environmental, social and other benefits' (Commonwealth of Australia 2017: 3). It was heavily influenced by UK developments through the REF in the intervening years (Australian Research Council 2016).

In the UK, the emergence of the impact agenda is commonly traced back to the Warry Report (2006: 3), which explicitly called on Research Councils to 'influence the behaviour of universities... in ways that will increase the economic impact'. It argued for the importance 'to measure outcomes, however difficult, rather than outputs' (Warry 2006: 5). In the same year, the Treasury proposed 'greater rewards for user-focused research' (HM Treasury 2006: para.3.74). The initial plan was to replace the research assessment exercise, with a less expensive and more streamlined system 'based as far as possible on quantitative measures' and to introduce 'a distinct approach to science-based disciplines' (HEFCE 2007: 4). The assessment of these science disciplines would be 'driven by quantitative indicators', while other disciplines were to be subject to 'a new light touch peer review process, informed by metrics' (HEFCE 2007: 2, 4). However, the consultation prompted two key concerns: first, in relation to the tension between reducing burden and safeguarding rigour; and second, concerning the desire to maintain a unified system that did not treat the sciences differently from the social sciences, arts and humanities. Widespread concerns were raised about the implications of making a sharp distinction between two groups of subjects; not only because a number of subjects were deemed likely to 'straddle the boundary', but also because it was felt that this would undermine interdisciplinarity. Concerns were also raised about the

robustness of bibliometric indicators. In response to extensive opposition to a metric based system reflected in the consultation, the notion of ‘user value and impact’ emerged (HEFCE 2008: 14).

A report commissioned to explore international practices in assessing impact in 2009, concluded that ‘the work of the Australian RQF Working Group on Impact Assessment provides a promising basis for developing an impact approach for the REF’ (Grant *et al.* 2009: 55, emphasis in original). The RQF’s use of case studies was adopted and the assessment criteria of ‘significance’ and ‘reach’ were outlined (HEFCE 2009). This became the basis of the Impact Pilot Exercise in 2009-10. An official report ‘confirmed the feasibility of the approach tested through the pilot exercise’ and argued; ‘it is clear that HEIs [higher education institutions] can document nonacademic impacts and that in doing so a great majority will derive insight and local benefits’ (Technopolis 2010: 6). It also concluded that the use of subject-specific assessment panels meant ‘a generic model should work for all disciplines’. The 2007/8 banking crisis and the ‘politics of austerity’ embraced by the new Coalition Government in its 2010 Comprehensive Spending Review, prompted HM Treasury to champion research ‘impact’ assessment to justify the level of funding from the public purse. Hence, the institutionalization of the impact agenda represented something of a ‘Faustian pact’, whereby university manager acquiesced to government requirements that research should be directed towards external value-based goals to protect research budgets (Holmwood 2011).

THE RESEARCH EXCELLENCE FRAMEWORK

In early 2011, HEFCE confirmed the incorporation of retrospective impact assessment as a performance indicator within the REF at 20% of the total value of the exercise.⁵ REF2014 was to be the first application across a research system of the allocation of research funding based on an assessment of non-academic impact.⁶ Lord Stern (2016: 46-47) noted: ‘The UK REF2014 stands out as the first major concerted attempt - in a performance-based research funding system - to demonstrate research impact in a systematic way through the use of case

⁵ Initially it was proposed to be 25%, this was subsequently reduced to 20% but with the stated intention that it would rise in following exercises.

⁶ In 2018/19, university funding informed by the REF amounted to £1.6 billion, representing more than 10% of some universities’ overall institutional resources.

studies'.⁷ Impact was defined as: 'An effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia'. The exercise was selective in that institutions only needed to submit, what they considered to be, their 'best' researchers, outputs and impacts against the criteria.⁸

Submissions are organised into discipline-based UoAs and grouped under four Main Panels (A–D), whose role is to foster consistency. Criminology is not a UoA in its own right.

However, three panels explicitly welcomed criminological submissions: Law; Social Work and Social Policy; and Sociology. In REF2014, a variety of procedures specific to criminology were implemented to ensure broad consistency of approach across the three panels. These included the appointment of a joint assessor, a joint calibration exercise and oversight of the assessment profiles as they emerged by Main Panel C (HEFCE 2015: 72).

Each institutional submission was required to include a designated number of impact case studies corresponding to the size of staff submitted: two case studies for the first 15 (full-time equivalent) staff and then one more for each additional 10 staff. In total, 6,975 impact case studies were submitted across all disciplines to REF2014.⁹ Among the 225 case studies submitted to the Law panel, a sizeable proportion (over one third) drew upon criminal justice or criminological research in some form. A similar reliance on the impacts from criminology was also evidenced across the Social Work and Social Policy and, to a lesser extent, the Sociology panels. Each case study was contained within a four pages template that incorporated a theorization of impact through its construction of the patterned links in the causal chain between underpinning research, mechanisms of delivery, impact and corroborating evidence. Each narrative required the following to be addressed:

- Describe the underpinning research produced by the submitting unit.
- Reference one or more key outputs and provide evidence of the quality of the research.
- Explain how the research made a 'material and distinct' contribution to the impact.
- Explain and provide appropriate evidence of the nature and extent of the impact.
- Provide independent sources to verify claims about the impact.

⁷ Hong Kong has largely followed the UK model of impact assessment in its 2020 Research Assessment Exercise.

⁸ In response to widespread criticisms over selectivity and in light of Stern's recommendations, REF2021 will require institutions to submit all academic staff with 'significant responsibilities for research'.

⁹ Case studies are publically available: <https://impact.ref.ac.uk/casestudies/>.

According to the subsequent national evaluation RAND report (Manville *et al.* 2015a: 25-26), the types of impact submitted to REF were significantly influenced by two particular aspects of the rules: the definition of impact and the requirement to evidence impact claims. It concluded that universities: ‘had impact case studies that they viewed as illustrating impact but which they did not feel could be submitted under the guidelines’ (p.25). These included case studies relating to public engagement, where it was felt that the criteria and eligibility rules meant that such case studies were perceived as ‘riskier’.

A review of all REF2014 impact case studies found that the strength of the narrative approach to impact ‘allow[s] authors to select the appropriate data to evidence their impact’ (King’s College 2015: 72). By contrast, ‘the quantitative evidence supporting claims for impact was diverse and inconsistent, suggesting that the development of robust impact metrics is unlikely’ and that ‘impact indicators are not sufficiently developed and tested to be used to make funding decisions’. This was reinforced in the *Metric Tide* report’s conclusions:

‘for the impact component of the REF, it is not currently feasible to use quantitative indicators in place of narrative impact case studies... There is a danger that the concept of impact might narrow and become too specifically defined by the ready availability of indicators for some types of impact and not for others... defining impact through quantitative indicators is likely to constrain thinking around which impact stories have greatest currency and should be submitted, potentially constraining the diversity of the UK’s research base.’ (Wilsdon *et al.* 2015: x, emphasis in original)

While there was considerable opposition to the politically driven imposition of impact within REF2014, there is some evidence that since first mooted, it has become more accepted amongst British academics, in part because of the 2014 exercise. Weinstein and colleagues (2019: 60) recently found that: ‘Almost all interviewees had mixed views on whether the impact agenda was wholly positive, but it was regularly referred to as something which helped to boost reputation, giving credit to work which otherwise would not be seen as valuable’. The improved visibility of, and regard for, outward-facing research is often seen as a positive consequence of the focus on impact. Whether this outweighed the costs is moot. In financial terms, the overall cost of the submission of the impact element of REF was calculated at £55 million out of a total cost of £212 million to universities for the exercise as

a whole (Manville *et al.* 2015b). This no doubt significantly underestimates the full cost of the institutional infrastructures that have materialised (to which we return).

Prominent critiques of impact in REF are that it valorises a narrow version of academic research (Back 2015), limits academic freedom and undermines ‘blue skies’ research (Sayer 2015). While the criteria clearly privileges a certain conception of the impact chain, research into the panel deliberation processes (Derrick and Samuel 2016; Derrick 2018) and my own observations suggest there was considerable latitude – or ‘looseness’ (Watermeyer and Chubb 2019: 1557) - in the interpretation and application of the evaluation criteria. Scrutiny of the criminology-informed case studies submitted to the REF2014 Law panel evidences powerful examples of where research has been deployed in broad ways; to hold public bodies to account and challenge powerful organizations. By contrast, Back (2015) reviewed the 96 case studies submitted to the Sociology panel and concluded that 80% presented a narrow version of intervention that ‘tinkers with minor reforms’ and ‘that nudges the edges of policy and political influence’. Yet, this inference is perhaps unsurprising given the complexities of attributing and evidencing causation, not to mention the filtering processes and redrafting of those case studies that passed through the hands of institutional gatekeepers. As a technology of ‘auditable performance’, for REF purposes impact must be compressed into a narrative chain that inevitably defies the fluid realities of societal impact. The case study template constrains and shapes the impact narrative; satisfying ‘administrative demands to reduce the complexity and heterogeneity of potential content, and to make impact reporting manageable and auditable’ (Power 2015: 49).

Uniquely perhaps, the case study as narrative comprises a very distinctive logic, one that largely incorporates a style foreign to that traditionally associated with academic labours. In many senses, the case study narrative is antithetical to the established scholarly paradigm of research excellence with its emphasis on theory, evidence and the intellectual humility of scientific knowledge. Customary practices of critical scholarship tend to accentuate a balanced summary of the evidence, qualifications and caveats to propositions, and even the falsification of hypotheses, rather than the auditing demands on amassing testimonies or intimations that confirm prior assumptions or support existing claims. It was striking how few of the case studies submitted to the Law Panel exhibited a clear theory of change that might explain how the underpinning research had produced the impact claimed - beyond the assumption that it was good research, had been disseminated to the ‘beneficiaries’ and

consequently had been utilised in some fashion. This lack of theoretical explanation or conceptualization of the dynamics of change is a telling omission from an exercise in academic excellence.

In its conceptualization, design and format, the case study narrative implicitly encourages self-promotion, misattribution of causation and exaggeration of impact. It is as if US Senator Ed Muskie's call in the 1970s for somebody to find him 'a one-handed scientist' – who does not equivocate between 'on the one hand' and 'on the other hand' - is now being institutionalised this side of the Atlantic. Consequently, case study narratives are more akin to a promotional 'sales pitch' with persuasive argumentation and selective corroboration. In place of the humble 'two-handed scientist', they license a version of the public intellectual that borders on the 'arrogant, self-crediting, boastful' (Back 2015). Case study narratives constitute what Watermeyer and Chubb (2019) refer to as 'new modalities of scholarly distinction'. In so doing, they present new challenges for their authors (unaccustomed to the new mentality) and reviewers (uncertain what claims to trust), and pose fundamental questions about what academics are (their identity) and what they do (their purpose and practices). There are evident dangers that overselling the claims of research impact through case studies may have a wider corrosive influence on academic cultures, authenticity and the place of intellectual humility (Weinstein *et al.* 2019). Given this awkwardness of the narrative form for academics, it is less surprising perhaps, that university REF managers have seen fit to employ journalists, consultants and think-tank policy 'wonks' to help redraft and edit emergent impact case studies. Their professional praxis and ethos is closer to that engendered by and demanded of the audit process.

From a regulatory perspective, three features of the REF's attempts to assess impact warrant further comment. First, only a limited numbers of impact case studies need be submitted and these need not be representative of the spread of impact-related work across the UoA. This has implications for what Power (1997) terms 'decoupling', whereby the impact of the audit process – in this instance the goal of fostering a culture of impact throughout academia – is not fully embedded in the organizational mainstream, but rather insulated in discrete cocoons of activity. That a UoA of some 34 staff submitted to REF2014 or 44 staff at REF2021 only require four case studies means that the vast majority are not directly caught up in the audit process. In this sense, decoupling serves to contain and shelter the effect of the audit process.

Second, the involvement of non-academic impact ‘users’ in the assessment process was intended (by some politicians at least) to disrupt the regulatory stranglehold that (self-serving) academics had managed to secure over earlier exercises. However, it is not evident that this outcome was realised. This may be because many of those ‘users’ appointed to the panels were sympathetic to the challenges of research utilization in the fields of policy and professional practice, but also because they continued to be in a minority. On the Law panel, a conscious decision was adopted that academics would take a major responsibility for panel judgements in relation to impact assessment. Consequently: ‘All impact templates and case studies were assigned to at least one user member/assessor and two academic members of the sub-panel as lead readers, who each read the submission independently before discussing and comparing their views’ (HEFCE 2015: 74). While all assessments were determined by the whole panel in plenary following discussion led by the designated assessors, nonetheless the fact that two academics were usually paired up with one ‘user’ provided clear confirmation that judgements were not simply to reside with ‘users’. In the event, ‘user members and assessors made a highly positive contribution to assessing both the strength of the evidence provided to support the claim and the reach and significance of the impact itself’ (p.74). They afforded constructive insights into the process of commissioning and using research to inform policy and practice, as well as valuable reflections on the relative challenges in securing influence in certain policy fields at given times, as against others. These insights often spoke to the fact that the relative significance and reach of impact are conditioned and shaped by the extent to which research may be pushing at ‘open’ or ‘closed’ doors; policy environments that facilitate or inhibit change.

Third, while REF seeks to change and influence the behaviour of universities and their staff, it does little to shape the utilization of research from the perspective of the ‘user’, be it the policy-maker, practitioner or business. Especially with regard to policy ‘users’, the problems of attribution of causation and research utilization remain considerable – namely how those who use research to inform change acknowledge the research upon which their policies draw. The task of evidencing research impact is rendered more problematic when those ‘beneficiaries’ do not register, record or reference the influence of research.¹⁰

¹⁰ The need for policy-makers actively to engage with research communities to inform policy-making has only recently made a late and hesitant entry in the form of publish documents setting out government department’s Areas of Research Interest; see <https://www.gov.uk/government/collections/areas-of-research-interest>

REF 2021 and the Impact Architecture

The second REF exercise in 2021 builds upon criticisms of, but follows much the same format as, the initial exercise. The role of impact is to be ‘broadened’ and ‘deepened’ within the exercise as a whole (Stern 2016: 16) and the value attributed to impact will increase to 25%. The revised criteria seek to accommodate Lord Stern’s recommendations that ‘the REF should make it clear that impact case studies should not be narrowly interpreted, need not solely focus on socio-economic impacts but should also include impact on government policy, on public engagement and understanding, on cultural life, on academic impacts outside the field, and impacts on teaching’ (p.23). There is awkward and hesitant, but important, recognition of the complex and non-linear nature of impact in the revised criteria. The Guidance on Submissions asserts: ‘The relationship between research and impact can be indirect or non-linear (for example, co-produced research)’ (Research England 2019a: 73, emphasis added). More specifically, Main Panels C and D – covering the social sciences and arts and humanities respectively – emphasize ‘that in some cases the research associated with the impact may be carried out at the same time as the impact, and that the nature of the relationship between the research and the impact may be complex and non-linear’ (Research England 2019b: 57).

Despite this tentative recognition of a broader, more nuanced definition of impact, it is questionable to what extent this will steer institutional behaviours, influence cultures and change everyday practices. In many senses, the manner in which the criteria are interpreted by the specific REF subject panels is less important, in this regard, than the manner in which universities manage and select impact case studies for submission to the panels in the first place. In its wake, REF has spawned an ‘impact industry’, which has witnessed the birth of ‘an entirely new performance accounting instrument and its associated practice infrastructure’ (Power 2015: 43). This infrastructure includes a coterie of new roles and jobs (‘impact champions’, impact officers, evidence collectors, ‘ghost’ case study writers, consultants, etc.), innovative technologies and software programmes, funding streams,¹¹ internal units to oversee quality and new institutional processes. While impact assessment has become ‘a more overt attempt than previously to shape the behaviour of researchers about topics and approaches’ (Smith *et al.* 2011: 5), much of the impact of impact in REF has been indirect;

¹¹ Notably, the various UKRI funded Impact Acceleration Accounts.

delivered through the self-regulatory capacities and infrastructures erected by universities in REF's long shadow.

This has produced a dissonance between the interpretation of the formal criteria by the panels and the 'shadow' filtering deliberations of university management in preparing REF submissions. This disjuncture was acknowledged in the Stern Review as fundamentally problematic (2016: 23). Like other criticisms in the review, this was aimed not at the panels but rather at institutional decision-makers and university research managers overseeing the REF selection and submission process. Similarly, there is acknowledgement that REF is used to serve institutional purposes very different to those formally attributed to the exercise; namely public accountability; quality benchmarking and the distribution of public funding. As one senior university manager stated to me, with no trace of irony: 'If the REF didn't exist, we would have had to invent it ourselves'. Whereas Moran (2003: 4) depicts the British regulatory state having replaced 'self-regulation' - in the form of 'club government' that was 'informal, oligarchic and secretive' - with new forms of hyperactive, hierarchical state regulation, the REF has given birth to new forms of 'shadow' self-regulation within universities that are themselves 'oligarchic and secretive'. While they operate within the framework of the formal REF criteria, this new architecture and industry has come to represent a regulatory 'semi-autonomous social field', which in Moore's terms 'has rule-making capacities, and the means to induce or coerce compliance; but it is simultaneously set in a larger social matrix which can, and does, affect and invade it' (1973: 720). REF might be better understood as a form of meta-regulation, by which the principal means of steering behaviour derive less directly from the system of audit and performance measurement via research assessment *per se*, than from 'self-regulation' and 'controls based in competition, community and design' (Scott 2003: 205). Institutional reputation, self-promotion and competition, driven by an ever-expanding corpus of league tables, feed this logic, which is less about public accountability and more a culture or performativity rooted in managerial ethos and infrastructure.

This accretion of infrastructure constitutes an interesting subject of study in its own right. It represents processes in making practices, discourses, institutions and identities; and hence, in knowledge shaping. In detailing the emergence of 'impact accounting' and the dynamics of how new accounting systems come about and achieve a threshold of institutionalization, Power (2015) usefully differentiates between what he terms 'field-level' and 'organizational-

level' changes and their interactions. My own experiences - as a REF panel member and member of internal university REF review process across a variety of disciplines and institutions - testify to this disjuncture and interaction between the different regulatory regimes. Shadow REF processes and deliberations have a distinct dynamic of their own. From their ethnographic study of impact peer-review undertaken in one institution in the run up to REF2014, Watermeyer and Hedgecoe (2016) similarly found a 'highly instrumentalised' interpretation of impact reflecting a preference for 'prudence and conservatism' and a tendency to prioritise 'hard' (or more immediately certain) impacts over those deemed 'soft' (or more nebulous). This had particularly detrimental implications for public engagement, in relation to which they observed 'hesitance, if not resistance' in reviewers' deliberations: '[T]he kinds of "soft" impact associated as, or rather with, public engagement were seen to be more peripheral and vague and consequently less preferred by reviewers than impacts where causality and the research/impact nexus were more readily justified' (Watermeyer and Hedgecoe 2016: 662).

Given the high level of uncertainty surrounding lines of causality and attribution, and the limited evidence that might inform authors' impact claims, the internal scrutiny, filtering and editing processes of university management, invariably focus on what they can control, namely crafting a compelling narrative. As Watermeyer and Hedgecoe (2016: 661) found, this prompted 'an institutional strategy for upgrading impact case studies based on a presumption that rhetorical artifice and a combination of exegetical eloquence, economy and precision would invoke the largesse of REF panellists'. This resulted in the construction of the case study narrative as commodified 'sales-pitch' - 'a hybrid of narrative lyricism, dynamism and informational efficiency... that ensured impacts were obvious and explicit' (Watermeyer and Hedgecoe 2016: 656). Similarly, Power (2015: 47-8) highlights the manner in which, over time as the submission date got closer, case study authors (at the institution he reports) on 'lost control of their texts', as a result of which, case studies 'were no longer the property of their authors but belonged to [the institution] as organizational units of accounting'.

As a panel member, it was frustrating that of the 225 case studies submitted to the Law panel at REF2014, many conformed to quite traditional and narrow interpretations of linear impact. Few departed from this model and a very small number centred on public engagement as

impact.¹² Yet, perhaps this was to be expected, as it reflects more accurately the filtering processes and logics of research management infrastructures up and down the country, than it does the much broader impact of legal and criminological scholars' research. As a result, the least risky, 'low hanging fruits' are preferred over complex, nuanced or difficult to evidence claims. In essence, linear stories are easier to narrate and corroborate. In part, this is driven by a management fear of getting it wrong, given the significant consequences that attend to the results. In a context of uncertainty, internal institutional reviewers often seek comfort in deferring to surrogate or proxy indicators of quality despite their well-documented weaknesses. This is certainly evident in relation to the much more established processes of reviewing outputs, where journal impact factors and citation data are often used despite formally being discounted and discredited.¹³ Much the same attends to recourse to quantitative metrics in impact assessments where their use may be well-intentioned, but is invariably not always well-informed and often ill-applied. Inadvertently, they serve to undervalue non-linear forms of impact. While there have been several concerted efforts to tame and curb this 'metric tide' (Wilsdon *et al.* 2015) under the rubric of 'responsible metrics',¹⁴ it is not always more or 'smarter' metrics that are needed but different ways of according value to processes, relationships and mechanisms that foster change which may not easily be reduced to quantifiable metrics. Accordingly, one of the key principles of the 'responsible metrics' movement has been that of 'humility' in recognising that quantitative evaluation should support, but not supplant, qualitative, expert assessment.

In some senses, this recourse to surrogates and risk aversion is understandable. While panel members were acutely aware of the weight and implications of their judgements, they did not directly have to live with the consequences of their decisions; at least, not in the way that university managers have to account for outcomes. Over time, it has become clear that the fate and future of individual's careers, research teams and whole departments have been adversely affected by audit outcomes. While, greater attention to equality and diversity issues

¹² Accessible at: <https://impact.ref.ac.uk/casestudies/Results.aspx?UoA=20>

¹³ The REF2014 Business Studies and Management panel demonstrated incongruities between the ABS list of journals used by many Business Schools to manage their submissions and assessments actually given by the panel, in a *post hoc* comparison of REF scores with ABS journal rankings (Pidd and Broadbent 2015: 574-5). There is evidence across other disciplines that, despite HEFCE's advice, bibliometric data were widely used by university managers to select both staff and outputs for submission to REF2014 (Rohn 2012; Sayer 2015). This was deemed sufficiently problematic that the REF2021 guidance states: 'The funding bodies do not sanction or recommend that HEIs rely on citation information to inform the selection of outputs for inclusion in their submissions' (Research England 2019a: 67).

¹⁴ The UK Forum for Responsible Research Metrics, San Francisco Declaration on Research Assessment (DORA) and Leiden Manifesto (Hicks *et al.* 2015) have all called for a step change in the culture of metric use.

expected within the REF2021 criteria helpfully draws attention to some of the conscious and unconscious biases that inform REF selection and internal managerial decision-making, nonetheless, many of the differences in interpretation attend to types of outputs and impacts rather than protected equality and diversity characteristics *per se*.

CO-PRODUCTION

Whereas the impact agenda has been driven top-down by governments and funding agencies, a variety of different practices in knowledge production and its application have emerged from within the research community, in differing guises and under diverse nomenclatures. Many of these conform broadly to Gibbons and colleagues' Mode 2. Here, I explore the contribution of co-production as methodology and ethos, and focus on specific attempts to translate these into research practices in the context of policing. Co-production is closely related to, and builds on, long-standing traditions of participatory action research, co-operative inquiry and experience-based co-design. Co-production involves bringing together parties that may have markedly different priorities and interests, with the aim of working together towards mutually agreed shared goals. At its core is the idea of collaborative advantage, which derives not simply in the combination of perspectives but in framing and shaping questions, methodologies and impacts differently. Hence, negotiating common purpose, forging shared priorities and ensuring appreciation of the divergent contributions of differing partners are all cornerstones for mature partnerships in co-production. In practice, co-production assumes the lack of a rigid hierarchy of knowledge forms, fluid and permeable disciplinary boundaries, a two-way flow of knowledge between researchers and non-academics (not simply its 'transfer') and a normative concern with usefulness and action.

As an approach, co-production engages with questions that are both metaphysical and epistemological; about the way the world is and how we find out about it. Jasanoff (2004: 275) suggests that co-production offers insights into description, explanation, normative analysis and prediction. In relation to description, co-production offers situated and constitutive insights – reveals a thickness to the connections between what we know and how we know it. Explanation is exposed as non-linear and not the outcome of mono-causal accounts of change. With regard to normative analysis, co-production highlights the political and cultural dimensions of knowledge production and as such raises questions about the choices made and the power relations that inform these. Not only does knowledge constitute power, but so too power frames and organises knowledge. In this way, power is constituted as

much in the marginalization of alternatives as it is in the adoption of dominant or taken-for-granted viewpoints. Finally, it can be predictive in highlighting durable long-term trends or forces. It may help reorganise - through reciprocal feedback loops - the relations between knowledge, culture and power.

Co-production implies a reformed conception of what constitutes knowledge, how it is mobilised and used. Co-production highlights the performative effects of research: the ways in which (social) science can reshape the social world it seeks to describe. Performativity underscores the manner in which methods are productive. They do not just describe the world, they also make up or enact the social world. As decades of criminological research testify, the effects of research on policy are not always benign. Knowledge does not simply solve governance problems, but also creates new ones. Hence, knowledge and governance are mutually constitutive. For Jasanoff (2004: 6), co-production is ‘not about ideas alone’ nor is it ‘only about how people organise and express themselves, but also about what they value and how they assume responsibility for their interventions’. Thus, co-production demands not merely a methodology but also a ‘praxis’ that combines problem-raising and problem-solving, in analogous ways to those implied by McAra (2017).

Contrary to rose-tinted arguments of some advocates (Pain *et al.* 2015; Campbell and Vanderhoven 2016), co-production also generates considerable governance and ethical challenges. Most notably, it leaves unresolved questions about how ‘to collect, discipline and coordinate distributed knowledge’ (Star 2010: 607). It needs both to be translated into practice - through complex processes of negotiation during which meanings, claims and interests change and gain ground – and subjected to forms of regulation and governance (however ‘light’ or ‘loose’) – in the face of contingencies, emergent events and fluctuating circumstances – that contain power differences and accord with overarching principles and purpose. In its implementation, co-production is ‘messy’ – in the way Nowotny (2017: 49) uses the term to emphasise ‘contingency, indeterminacy, sense-making and openness to change’. It entails adaptations, concessions, adjustments and compromises, such that what get done ‘in practice typically “resembles” the theoretical model, as opposed to reproducing all its elements in detail’ (Innes *et al.* 2019: 385). The relatively recent emergence of complex forms of knowledge co-production has largely outstripped the pace of research into the structures and types of governance that might best support them.

Co-production in Policing

Traditionally, police/academic relations have been likened to a ‘dialogue of the deaf’ (Bradley and Nixon 2009), more often characterised by mutual misunderstanding, suspicion, distrust and disengagement. Unsurprisingly, the use of research in policing lags considerably behind other public services, such as health and social care, where it is accorded greater prominence and value in guiding professional judgement (Greenhalgh 2018). With 43 separate police services in England and Wales, organizational learning from research tends to be piecemeal, fragmented and poorly coordinated. It was in response to this that, together with colleagues, we have been forging experimental mechanisms and co-production methodologies to deliver organizational change - in terms of the ways in which researchers engage with policing partners and the ways in which police practitioners utilise and mobilise research evidence - through the N8 Policing Research Partnership (N8PRP). First established in 2013, the N8PRP secured a generous HEFCE Catalyst Grant that has been underpinning a five-year programme of activities and strands of research (2015-20). The partnership was designed as a series of interconnected points of interaction between researchers and policing professionals. The philosophy informing the overall design was that those who are going to use research and apply the knowledge base at the frontline should be involved in building it by actively co-producing the evidence. It was also premised upon the understanding that much policing is delivered through interactive, networked relations with other partner organizations – in the public, voluntary and private sectors – as well as members of the public and should therefore engage with these plural (knowledgeable) stakeholders.

Operationalizing co-production – particularly with powerful policing actors – is both complex and difficult. The ‘messy’ application of the philosophy of co-production through the N8PRP, and the challenges to which these have given rise, are discussed elsewhere (Crawford 2017; 2019). Here, I simply want to reflect on the implications for understanding societal impact and to highlight some of the dissonances between the practice of co-production and the auditing demands of REF.

A key mechanism for generating co-produced research via the N8PRP has been the ‘small grants’ initiative. In essence, this scheme provides pump-priming funds to teams of academics and practitioners working collaboratively to develop new policing research. The projects funded were to be challenge-driven, co-designed and co-delivered by teams of researchers and front-line practitioners from the police and other partner organizations. Each year the N8PRP provided a thematic ‘steer’, although grants awarded were assessed against

open criteria. Across four rounds of funding from 2016/17 to 2019/20, 15 projects have been funded (see Table 2).¹⁵ Each award leveraged considerable match-funding and investments of time from the participating teams and many projects have gone on to secure further funding.

Table 2: Co-production Research - Small Grants Scheme

Year	Title	Linked to Steer
2016/17	Policing Bitcoin: Investigating, Evidencing and Prosecuting Crimes Involving Cryptocurrency	Yes - <i>Cybercrime</i>
2016/17	Mapping the Contours of Human Trafficking	No
2016/17	Exploring Novel Psychoactive Substance Use	No
2017/18	The Manipulative Presentation Techniques of Control and Coercive Offenders	Yes – <i>Domestic Abuse</i>
2017/18	Police Officer Responses to Coercive Control	Yes – <i>Domestic Abuse</i>
2017/18	Exploring the Impacts of Body Worn Video in Incidents of Domestic Abuse	Yes – <i>Domestic Abuse</i>
2017/18	Innovation in Policing Domestic Violence: Understanding Success	Yes – <i>Domestic Abuse</i>
2017/18	Policing Drugs in North Yorkshire	No
2018/19	Early Identification of Honour Based Abuse	Yes – <i>Early Intervention</i>
2018/19	Policing Vulnerability: An evaluation of the Sex Work Liaison Officer Role	No
2018/19	Mapping and Identifying Modern Slavery Vehicular Activity	No
2018/19	Emerging Technology and Big Data Analytics	No
2019/20	Embedding Mental Health Support within District Police Stations	Yes – <i>Mental Health</i>
2019/20	Identifying Sexual Trafficking Online	No
2019/20	Policing Children and Families: Police Responses to Child-to-Parent Violence	No

¹⁵ Successful awards provide funds of up to £25,000 over 12 months. Completed project summary reports are available: <https://n8prp.org.uk/small-grant-reports/>

Vitally, this mechanism provides incentives for frontline practitioners and researchers to work together to co-design the research questions, methods and data collection, as well as to collaborate on the data analysis and implications for practice. The wider N8PRP infrastructure provided ample opportunities for, and channels to enhance, the dissemination and application of the research. In contemporary parlance, diverse ‘pathways to impact’ are embedded in the partnership infrastructure. Experiences from the scheme highlight a number of recurring themes of relevance to understanding societal impacts derived from co-produced research.

First, relationships and people matter in effecting change. Research informed change is rooted in relations and inter-personal networks. The skills accumulated, assets produced and relationships forged through co-production projects themselves often become the conduits of change. For instance, the Greater Manchester Police officers who worked on the ‘Policing Bitcoin’ project took their learning and knowledge with them when they moved to new posts at the National Crime Agency, subsequently influencing policy and practice. Likewise, the impact of the ‘Manipulative Presentation Techniques of Control and Coercive Offenders’ project findings were significantly enhanced by the central role played by the Cheshire police officer in championing the application of the research that she had helped co-produce. These experiences reinforce the observation that people as active, reflexive subjects exercise volition in crucial ways that render the research-to-utilization-to-impact path anything but a straight line.

Second, organizational and cultural change arises through sometimes small, iterative processes of mutual learning. Not only is research-informed change relational but also processual. It does not simply express itself in impacts, understood as outcomes at particular places or moments in time, but also in the processes of knowledge generation, translation and implementation. Societal impact tended to be emergent, represented through evolving effects, adaptations and sometimes unintended or unforeseen consequences. For example, the ‘Police Officer Responses to Coercive Control’ project - involving Merseyside Police and Women’s Aid working alongside academics - ensured that the learning tool developed to help equip officers with the skills to provide an improved service for victims of the complex new coercive control law was duly utilized by the police through an iterative process (Barlow *et al.* 2019). Piloted in Merseyside, the engagement of other forces in the partnership enabled learning across force boundaries. Likewise, the insights established in the ‘Mapping the

Contours of Human Trafficking' project informed the development of subsequent larger ESRC funded follow-on research entitled 'Perpetrators of Modern Slavery Offences' (Gadd and Broad 2018). Rather than being linear, the path from exploratory research to practical applications tended to resemble 'a process often involving a gradual, porous and diffuse series of changes undertaken collaboratively' (Dijkgraaf 2017: 4).

Third, serendipity can play a vital role in fostering change, whereby outcomes arise from opportunistic, unintended or chance encounters. While the design of the partnership sought to structure and plan for co-production, many of the policing collaborations that came about also relied on unplanned responses to unforeseen occurrences. Rather than pretending that serendipity is not fundamentally important because it is so uncertain, beyond control and difficult to predict (by its very nature), it needs to be acknowledged in any assessments of societal impacts. This points to questions about how best to foster the conditions that enable researchers to exploit and maximize the opportunities presented by serendipitous developments.

Fourth, evidencing impact is problematic, not simply because relationships evolve and people move on (a particular challenge in policing), but also due to the complex, multiple processes and relations through which impact ensues and develops. Attributing authorship of causation is both complex and contentious. Dijkgraaf (2017: 37) observes: 'Attribution is problematic since the stream of knowledge not only meanders, but also branches out'. As noted earlier, attribution is rendered particularly difficult where those institutional beneficiaries of knowledge are not accustomed to accrediting change to underpinning research.

Finally, the process of knowledge co-production itself is infused with differential power relations, hierarchies and structural conflicts, which require negotiation and management, especially in the context of policing. Police are powerful, authoritative actors, well versed at articulating their preferences and interests. The police and PCCs wield political and organizational power and resources, and have abundant human, social, cultural and symbolic capital upon which to draw. Experiences highlight this dimension of power and the tendency of police frequently to dominate collective agendas and marginalise dissenting voices. In the context of policing, therefore, co-production is aligned less to the priority of empowerment of relatively powerless and disenfranchised groups – as it tends to be in the context of participatory research with civil society organizations or community groups (Pain *et al.* 2015;

Greenhalgh *et al.* 2016). In policing, it is more closely aligned with organisational learning, critical reflection and checking the legitimate use of power. Co-production does not mean that all the partners necessarily agree on the problem/evidence or hold the same view of it. Rather, it demands mutual respect, the acceptance of difference and the active negotiation of commonalities. Conflict may be the healthy expression of different interests that need to be negotiated in open and constructive ways that recognise - and where possible seek to compensate for - power differentials.

Such governance includes setting ground rules, defining who is responsible for what and to whom, and ensuring evenly distributed power relations (Greenhalgh *et al.* 2016: 419). In the context of the N8PRP, ‘independent interdependence’ has provided a principled premise for structuring relations between partner organizations (Crawford 2017). This underscores the importance of retaining critical distance and a degree of academic autonomy in engagements with policing partners. In a similar vein, McAra (2017: 785) powerfully argues ‘the need for criminologists to be both “transcendent” (namely to see systemic functioning in its entirety, to stand above the politics and cultural dynamics at play) and situated (to be involved in dialogue and engagement with practitioner groups and understand the particularities and pressures of their day-to-day encounters)’. Given, the open, dynamic and flexible nature of co-production these challenges to research integrity are never settled but require ongoing vigilance and attention.

CO-PRODUCTION AND THE REF

Despite an explicit reference to co-produced research in the formal REF2021 Guidance, various statements about ‘non-linear impacts’ and the inclusion of ‘negative impacts’ – the ‘reduction or prevention of harm, risk, cost or other negative effects’ (Research England 2019a: 68) - the criteria and their interpretation in institutional infrastructures retain a narrow construction of impact. In its necessity to measure auditable performance, REF conspires to undermine the kinds of impacts likely to be generated through co-production and tends to valorised certain features of impact case studies. These include:

- linearity over non-linearity in the link between underpinning research and impact;
- a temporality and chronology that is constructed retrospectively;
- direct over indirect lines of causality;

- instrumental and activity-based properties over relational and processual mechanisms that foster change;
- mono-causal over plural explanations of change;
- singular and discrete over dispersed, cumulative or iterative effects;
- unique over collective contributions to change;
- measurability and quantifiability over indeterminacy and hard-to-measure evidence;
- independence over interdependence of corroboration;
- intentionality over serendipity in design and actions that generate impact;
- simplicity over complexity or ‘messiness’ of narrative.

First, REF conceptualises impact as something that occurs at a particular time/place, leaving tangible traces that can be garnered as evidence of ‘significance and reach’. Its framing is fundamentally mechanistic and linear in its reading of impact as a causal chain. Pain (2014: 21) likens this to ‘striking a blow’, whereby ‘an impact is a single significant blow, with a linear temporal track from incident to effect’. For her, this privileges ‘masculine forms of power/knowledge relations’. Evidently, this conception of knowledge-informed change sidelines the idea of knowledge production and knowledge utilization as relational and arising through incremental processes of learning. Conversely, co-production eschews simplicity for richness and linearity for contextualization.

Secondly, REF embeds an independent ‘donor-recipient’ model of research whereby an apparently benevolent knowledge producer whose research effects change over an external community, organization or policy domain. This presents a reading of impact as something that one party does to the benefit of another. Hence, the language of ‘beneficiaries’ and ‘users’, as separate from the producers of knowledge, is a primary orientation of the formal criteria. Donors-and-recipients or producers-and-beneficiaries are conceived as ‘independent’, rather than in any sense interdependent. This separation is concretized in the assertion in the REF2021 guidance that evidence to support case studies should be ‘independently verifiable’ (Research England 2019b: 55). Consequently, testimonies from beneficiaries who are also co-producers of the research knowledge and/or participants in implementation are placed in an awkward position with regard to the audit process. The guidance states: ‘Where testimony is cited, it should be made clear whether the source is a participant in the process of impact delivery (and the degree to which this is the case), or is a

reporter on the process' (Research England 2019b: 55-56). Implicit here is that testimony from a participant or partner in the process of impact delivery or knowledge generation itself is to be regarded as of less value, as they fail the test of 'independent authoritative evidence' that litters the guidance's 'indicators of reach and significance' (Research England 2019b: Annex A). This is despite the fact that such individuals may be especially well placed to attest to the claims made, precisely because of their closeness to the process of knowledge production/implementation.

Thirdly, REF auditing offends an ethos of co-production in that it seeks to champion and reward the ownership of impact; as if impact had a singular author. It pits knowledge producers in competitive relations of claiming authorship of impacts that may well have been (co-)produced by multiple parties and plural forces. It fosters a different form of 'commercialization' of knowledge by attributing pecuniary value to knowledge generation when and if it can be rendered commercial 'property', through convincing claims to ownership in case study narratives. The kind of 'logic model' of impact that REF deploys is particularly unfit for the purpose of assessing the interactions, negotiations and activities of an unstable and organically evolving research networks in which the chain of causation for any particular outcome is diffuse and uncertain. Ultimately, REF constitutes a conventional framing of research impact that is predicated on a technocratic, 'intellectual property' view of knowledge, which overlooks more critical perspectives on the relation between knowledge generation and the distribution of power among stakeholders (Greenhalgh *et al.* 2016: 409-10). By contrast, co-production demands 'more complex forms of accounting in which causes and effects are braided together in strands that resist artificial separation into dependent and independent variables' (Jasanoff 2004: 277).

While the experiences of co-production help expose the limitations of dominant readings of societal impact in research audit and performance measurement endeavours, the extent to which they can be accommodated (on their own terms) within the constraints of such processes remains moot. It is hard to see how a large proportion of co-produced research is capable of being rendered 'auditable' in REF terms. Even if the REF panels look favourably on non-linear accounts of co-produced research-informed change, the likelihood that such case studies can successfully navigate the narrow interpretations and risk-averse preoccupations of 'shadow' managerial infrastructures is limited. Perhaps the route for co-existence lies in (re-)narrating a very different story of impact to the reality of co-production

– a constructed unreality - one that conforms more closely to the ‘new modalities of scholarly distinction’ (Watermeyer and Chubb 2019) that REF impact case studies entice; one that is less humble and borders on the ‘arrogant, self-crediting, boastful’ (Back 2015). The risk, however, is that such public narratives may actually serve to undermine the very relationships from which they spring.

CONCLUSION

One of the undoubted strengths of criminology is its status as ‘*rendezvous*’ subject, in that criminology is defined principally by its focus on an empirical field rather than by any allegiance to a particular theory or research paradigm. It constitutes a field in which scholars meet up but also pass through. It draws its vibrancy and richness from the diverse conceptual perspectives that are borrowed from elsewhere and applied to the problems of crime, security, justice and punishment. Somewhat dismissively, Holmwood (2010: 642-3) suggests that such ‘importer subjects’ as criminology do not have their own distinctive status as disciplines, but “import” frameworks, concepts and methodologies from other subject areas’. Nonetheless, he recognises that such subjects may have stronger inter- or transdisciplinary ‘Mode 2’ identities; in the sense outlined by Gibbons and colleagues (1994). However, the distinction between ‘importer’ and ‘exporter’ discipline that Holmwood deploys is ‘overly crude’ - as Savage (2010: 662) remarks – in that it both assumes disciplinary ‘rude health’ on the part of ‘exporters’ (outside sociology, which is the subject of Holmwood’s concern) and implies an unhelpfully rigid hierarchy. Criminology is not simply an ‘importer’ subject, but one that, through its interdisciplinary engagements and applied-orientation, is also the producer of novel insights that in turn may be (and increasingly are) exported to other fields. The institutional location of criminology in universities alongside and in engagement with other disciplines – be it Sociology, Social Policy, Law, Politics, Psychology or even Engineering - is to its enduring benefit and vitality. Rather than hankering after the institutionalisation of a separate, self-directed discipline, criminologists should seek to preserve a criminology that is intellectually and institutionally integrated in the wider university. To hitch criminology to the ‘rituals of verification’ that research and impact assessment holds out in the form of REF – in the possibly well-intentioned (but misconceived) desire to ‘advance the discipline’ and its wider recognition through its own dedicated REF UoA and panel – would be a great disservice to criminology as a dynamic field of enquiry. It would impose artificial institutional and managerial barriers and disciplinary introspection at precisely the moment at which the benefits from greater interdisciplinarity and transdisciplinarity (Nowotny 2017) are

being widely acknowledged as critical to addressing key societal problems and research grand challenges. In this vein, Garland (2008: 20-21) sagely notes: ‘Instead of aspiring to an autonomous discipline, we should work for an intellectually and institutionally integrated criminology – one that operates as a bridging subject, linking together a practical social field with a range of academic disciplines, one that poses policy-oriented, social-problem questions using theoretically-oriented, social science concepts in a way that enriches both’.

To safeguard such a vision of criminology, we need to ensure that it is not adversely caught up in and distorted by both the institutionalisation of an inward-looking disciplinary frame and the accompany processes of research audit. It was in keeping with this view of criminology as *rendezvous* field - rather than autonomous discipline in and of itself - that together with other REF panel members from across the three main disciplines of Sociology, Law and Social Policy during REF 2014, we sought to fashion procedures and emergent rules of engagement that would allow greater consistency, increased visibility and enhanced recognition for criminological research without narrowing its frame of reference or unduly subjecting it to additional auditable performance.¹⁶ These practices have been incorporated within the criteria for REF 2021, with the additional option to flag criminological research by submitting institutions (to whatever UoA), to raise the visibility and identity of the field and allow for retrospective analysis of the vibrancy of criminology, how it was treated by the different panels and its wider contribution to other disciplines. As a result, criminology (in the UK or elsewhere) need not be marginalised, simply because it is not recognised as an autonomous discipline for audit purposes. The kinds of knowledge that criminology can and does generate – notably under the conditions of co-production – should not be constrained by either the stringencies of narrow definitions of societal impact or the vicissitude of disciplinary aspirations.

With fierce competition for public resources, political pressures for accountability for research funding are unlikely to abate. New modalities of audit ‘hyperactivity’ in UK higher education lie on the horizon in the form of the Knowledge Exchange Framework (KEF).¹⁷ This reflects a picture of ‘hyper-innovation’ that accords with Moran’s (2003: 26) ‘frenetic

¹⁶ This includes a consistent approach to the text welcoming criminological submissions across the three designated panels, appointment of a joint assessor and joint calibration exercises.

¹⁷ The KEF’s guiding question is close to that of the REF: ‘How well do institutions use the assets they have to create economic and societal value?’ Unlike REF, it is likely to be a fully metrics system and its linkage to public funding remains uncertain.

selection of new institutional modes' of regulation as a dynamic process of ongoing change and contestation. In this shifting environment, the terms and conditions of the impact agenda in research remain both unsettled and subject to influence. Practices, discourses, institutions and representations remain in the making. This field is one in which social scientists and criminologists have much to contribute. In so doing, the research community needs to engage with and shape audit processes in ways that are more conducive to the production of scholarly excellence and the realities of societal impact. Despite their 'iron cage' appearance, audit regimes are not fixed but fluid, both in their interpretation and in their performances. The language and terms of audit – the formal REF criteria – can be adapted, challenged and resisted, but they also need to be put in their place. The further the audit culture is allowed to colonize the everyday practices of research – in their diverse and varied forms – the more restricted will be the scope for movement. Rather, there is a need to recognise the subtleties and dynamics of audit within the wider impact agenda, but to decouple this from the routine practices that animate criminological research endeavours.

My purpose has not been to argue that performative quests to measure research impact are inevitably doomed or intrinsically and always damaging, nor that co-production fundamentally and always produces better quality research that is more likely to be acted on. Rather I have sought to contrast the conceptualizations, practices and institutions that accompany governmental attempts to audit societal impact through the REF and efforts at research co-production. Both might be conceived as fitting within Mode 2 knowledge as application-oriented, yet, they are distinctly awkward bedfellows. To capture the non-linear chains of causation in the co-production process, measures of impact will need to be devised to reflect the dynamic nature and complex interdependencies of research systems and networks across different sectors and address processes as well as outcomes. It may be that co-production is not capable of being rendered 'auditable' and the audit systems as conceived are not capable of doing justice to the complexity of trying to determine the role of research in influencing social change. Regardless of how accommodating and welcoming to alternative constructions of impact the actual REF panels themselves may be, the likelihood is that few non-standard impact case studies will get past the gatekeepers of the semi-autonomous regimes of university research management that operate in the shadows of REF.

The impact agenda as institutionalized through the REF industry (and analogous audit regimes in other jurisdictions) clearly frames much of the debate about what constitutes

‘good research’. It rewards very particular forms and types of impact. However, this does not mean slavish compliance with established priorities nor does it inevitably limit the public ambition of scholarly discourse (Back 2015). Critical social science and criminological research need not necessarily be ‘diverted onto a pathway to mediocrity’ (Holmwood 2011: 16), nor should it undermine the ambitions of engaged researchers that strive to promote social justice. To some degree, the impact agenda can be deployed to licence and empower criminological practices - including co-production - that ‘combine the role of problem raiser and problem solver’ in ways that exploit ‘opportunities to negotiate and influence’ for public good (McAra 2017: 785). To do so, however, requires a concerted challenge to the ‘oligarchic and secretive’ infrastructures of the audit systems that higher education institutions up and down the UK (and beyond) have been erecting and feeding to control and deliver the ‘rituals of verification’ that insecure governments increasingly demand. Rather than slipping into ‘debilitating pessimism’ and ‘the politics of cynicism’ (MacDonald 2017: 707) that places the centre of gravity far away in Whitehall, it is incumbent upon scholars to consider their own place and complicity within the architectures that reproduces the audit culture, and to engage with and hold to account the institutional dynamics that serve to narrow the horizons of the possible and the language of possibility in research.

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