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Scandals, Ethics and regulatory change in biomedical research

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Abstract

This paper explores how a particular form of regulation—prior ethical review of research—developed over time in a specific context, testing the claims of standard explanations for such change (which center on the role of exogenous shocks in the form of research scandals) against more recent theoretical approaches to institutional changes, which emphasize the role of gradual change. To make its case, the paper draws on archival and interview material focusing on the research ethics review system in the UK National Health Service. Key insights center on the minimal role scandals play in shaping changes in this regulatory setting and how these depend upon the absence of a single coherent profession (and accompanying social contract) associated with biomedical research.

Introduction

Do scandals drive regulatory change? Are changes in the rules and the systems that oversee them in the case of say, medicine, the result of scandals in the medical profession? In perhaps the clearest exploration of these ideas in the regulation of *clinical* practice in the UK, Mary Dixon-Woods and colleagues posit a direct link between the activities of “bad apple” doctors, ensuing scandals, and subsequent changes to the system of professional self-regulation of UK doctors. They suggest that professional failure to deal with and prevent further scandals undermined the social contract between the state, public and the profession, and led to an overthrow of 150 years’ worth of self-regulation (Dixon-Woods, Yeung, and Bosk 2011).

Turning from doctors’ clinical practice to *research* activity, we might also conclude that, given that the regulation and oversight of research has grown considerably in the past fifty years—science, particularly biomedical research is far more regulated than before—such changes might also be responses to a series of research scandals. The most obvious regulatory

growth has been in the bodies responsible for the oversight of research, on ethical grounds, before it is done (a process referred to here as “prior ethical review”) —for example, IRBs in the US, RECs in the UK, REBs in Canada—which have become progressively more powerful, with more kinds of research falling under their remit, and with greater control over the research they oversee. Drawing on archival and interview data this paper explores the expansion of prior ethical review of research in a specific setting—Research Ethics Committees (RECs) in the UK National Health Service (NHS)—with a view to understanding why such changes occur.

In theoretical terms, given its dominant role in framing debates about the development and shape of organizations, it is unsurprising that neo-institutionalism – in the form of DiMaggio and Powell’s (1983) ideas about isomorphism at least – offers a useful initial analysis of NHS RECs. These authors’ central point – that institutions tend to mimic the form and structure of other more successful institutions to gain legitimacy – certainly makes sense in terms of the origins of RECs in the NHS, which arose out of a report published by the Royal College of Physicians (RCP) in July 1967. *The Report of the Committee on the Supervision of the Ethics of Clinical Investigations in Institutions* argues that each hospital authority ought to ensure “that all projects were approved by a group of doctors including those experienced in clinical investigation” (Royal College of Physicians of London 1967:4) in order to ensure that “all clinical investigations carried out within its hospital or institution are ethical and conducted with the optimum technical skill”.

In what is a clear example of coercive isomorphism (DiMaggio and Powell 1983), where direct pressure from other organizations results in institutional change, this report was a response to a memo sent by the US Surgeon General, stating that research funded by the US Public Health Service had to be reviewed by a committee focusing on ethics (Office of the Surgeon General 1966). As a result of this, medical researchers at University College London (UCL) asked their colleague, Max Rosenheim, then President of the RCP, to convene a committee to develop proposals in this area (Avery Jones, Dornhorst and Laurence, 1966). (For more detail, see Hedgecoe 2009, Hazelgrove 2002).

While it is certainly the case that the spread of prior ethics review to other countries can be seen as the result of isomorphic mechanisms such as Good Clinical Practice Guidelines of the ICH or the development and marketing of training courses for new ethics committee

members (Petryna 2009; Douglas-Jones 2015), comparison of the REC system in the UK with the US system of IRB highlights how *un*-isomorphic these two systems are. For example, in the case of research taking place at many different sites (such as pharmaceutical research), both systems have faced the challenge of ensuring research subject safety while limiting the regulatory burden of applying to dozens of different review bodies. The in the US, debates around multicenter research have continued for decades (Levine and Caplan 1986; Christian et al 2002; Mascette et al 2012; Ervin et al 2015), with only very recently there being any solid policy development encouraging a single IRB review to cover many different sites (NIH 2016). In comparison, as we will see later in this paper, in the UK, multicenter RECs (MRECs) were set up in 1997 and have since become the dominant model for RECs in the NHS. If isomorphic explanations were applicable to these two systems once RECs and IRBs had been set up, we would expect greater structural resemblance than there is.

The obvious alternative theoretical tradition to explain change in the REC system is that of punctuated equilibrium, which argues that “[s]ystems evolve through the alternation of periods of equilibrium, in which persistent underlying structures permit only incremental changes, and periods of revolution, in which these underlying structures are fundamentally altered” (Gersick 1991:11). Such a model has been applied to regulatory systems in general (Krapohl 2007) and in the context of ethics review systems it is reasonable to argue that the punctuated equilibrium model of institutional change is the dominant theoretical resource. For example Van den Hoonaard (2001) argues that, driven by “moral panics” in response to widely publicized research scandals, change in ethics review systems is characterized by a pattern of “punctuated equilibrium” (see also Fitzgerald 2005). While the terminology might change – to concerns about the “controversy machine” (Chalmers and Pettit 1998; Pettit 1992) or “disaster response” (Bozeman and Hirsch 2006) – the model used to explain changes in ethics review systems follows the same structure and direction: a widely reported research scandal produces a hurried and disproportionate response on the part of policy-makers and regulators, “clamping down” on research, expanding the range of topics requiring prior review and unnecessarily restricting researchers’ activities. Such a model implies quite clear, and indeed testable, expectations about changes in ethics review. The first is that, by and large, changes in ethics review systems should be preceded by research scandals – high profile events indicating a failure in the regulatory system. The second is that such scandals, when they take place, should directly result in changes to ethics review.

An alternative approach to institutional change, and one that this paper will explore alongside that of punctuated equilibrium, draws on a recent body of work that is sceptical about the role of external shocks in institutional change, suggesting that, in contrast “significant change often takes place gradually and through accumulation of seemingly small adjustments” (Thelen 2009:477; Mahoney and Thelan 2009; Howell and Kolins Givan 2011). In this context, institutional change occurs by a number of processes including “layering,” whereby “new rules are attached to existing ones, thereby changing the ways in which the original rules structure behaviour” (Mahoney and Thelan 2009: 16) or “displacement” where “new institutions are introduced and directly compete with (rather than supplement) an older set of institutions” (Mahoney and Thelan 2009: 16). Through a comparison of this “gradualist” model of institutional change with that of punctuated equilibrium, this paper explores the development of prior ethical review of research in the UK National Health Service (NHS) over the past four decades, with the aim of exploring the drivers for regulatory change.

Methodologically, the analysis offered here moves beyond the superficial approach typical of most explanations of changes in REC systems—which mainly draw on public accounts in the medical literature—that tell us little about the reasoning around regulatory change. In contrast, this paper draws on detailed archival and interview data, giving insight into the policy debates underlying such developments and exploring the reasons underpinning regulatory change. Thus one of this paper’s original contributions is its rigorous engagement with archive material that, until now, has been largely ignored. These data consist of material related to research ethics review, medical experimentation and related topics taken from the UK National Archives (NA) covering a twenty year period from the late 1960s onwards. Documents in this archive include minutes from meetings, letters, memos and reports circulated among the main institutional policy players in this area—the Department of Health (DH) and its predecessors, Medical Research Council (MRC) and the Royal College of Physicians of London (RCP). This material is supplemented by documents from the archives of the Royal College of Physicians, including minutes from meetings of an informal network, the Chairs of Research Ethics Committees, which met from 1974 to the late-1980s. Material on the Chief Medical Officer’s Consultative Group on Research Ethics, which met in the mid-1990s, was available from the personal archive of Professor Naomi Pfeffer. Finally, I interviewed a number of people involved in policy debates around ethics review at key points in time, including 6 commentators (academics or medics involved in public discussion about

RECs), 6 industry staff (with experience of research in the pharmaceutical industry at various points in time) and 9 policy makers (civil servants or politicians involved in shaping the NHS REC system between the mid-1980s to late 2000s)

The origins and development of prior ethical review

Following the 1967 RCP report suggesting the need for RECs, the institution of ethics review caught on. Backed by a Ministry of Health circular reminding hospitals of issues around consent and asking them to respond positively to the RCP's ideas (Ministry of Health 1968), a 1971 survey found that 238 RECs had been set up covering all teaching and 70% of non-teaching hospitals (Wavish 1971). However, the specifics of what ethics review actually involved, what types of applications needed to be reviewed and the composition of REC membership remained unspecified.

Repeating this pattern of arm's length support from Government, the RCP's 1973 follow up report, which essentially provides more details about the composition and scope of RECs (RCP 1973), was likewise supported by a simple circular asking hospitals to respond to the RCP's suggestions, but without formally accepting responsibility for the operation and running of RECs (DHSS 1975). For the next two decades, the RCP took the lead on organising and coordinating the activities of RECs, with the various incarnations of the DH seeking to remain supportive but not formally involved. This activity included public efforts such as the two editions of a set of guidelines for REC operations (Royal College of Physicians 1984; 1990) as well as more behind the scenes activities in the form of regular meetings of Chairs of NHS research ethics committees, which began in 1974 and which discussed issues of practice such as the composition of committees, the regularity of their meetings and the use of chairman's action (Royal College of Physicians 1974).

Histories of the NHS often highlight the growing influence of consumer interests around healthcare in the early 1970s (Mold 2010; Mold A 2011) and we might expect this to shape the development of the REC system. Yet archive material suggests only a limited role for consumer interests in the development of prior ethics review, certainly in comparison to the interests of medical researchers (represented by the MRC and RCP, for example). On the one hand, from a very early point in their development, and despite the express wishes of the Department of Health (DH), RECs recruited lay people as members, albeit in small numbers to begin with (Hedgecoe 2009). This became more formalized in 1975 when the DH, in one

of its periodic statements of support, suggested that RECs recruit their lay members from the newly formed Community Health Councils (CHCs), which were explicitly formed to increase consumer representation within NHS governance (Department of Health and Social Security, 1975; on CHCs in general see Klein and Lewis 1976).

However, at the same time, policymakers *resisted* the efforts of consumer organizations such as the Patients' Association (PA) to influence the regulation of medical research.¹ For example, in 1977 the PA drafted a proposed "Medical Experimentation Act" which would have made gaining "express voluntary consent in writing" a legal requirement for any medical research, with offenses punishable by three months in prison or a £500 fine (Patients' Association nd). The view of the DH was that this bill was "too restrictive", preferring "the system it has devised over the years in consultation with the medical profession" (Moyle 1977); the Bill was never debated in Parliament. Thus while individual consumer representatives, in the form of the CHC-based lay members, played a role in REC review (e.g. West Birmingham CHC 1989), the shape of overall policy was resistant to increased protection for consumers.

This period between the origin of ethics review and the late 1980s was characterized by a steady elaboration of previously unwritten rules in keeping with Mahoney and Thelan's "layering", a process that "does not introduce wholly new institutions or rules, but rather involves amendments, revisions, or additions to existing ones...Each new element may be a small change in itself, yet these small changes can accumulate, leading to a big change over the long run." (Mahoney and Thelan 2009: 16-17). This process came to a head in 1991 when the DH published its so-called "Red Book," a set of guidelines for the establishment and operation for what were now called Local Research Ethics Committees (LRECs), to be set up by District Health Authorities (Department of Health 199). RECs became formalized with the DH taking responsibility for these bodies and their activities on an ongoing basis.

The reasons for the DH's willingness to take charge of ethics review lie in two different strands of thinking within the Department, which, while not actually contradictory are, at the very least, in a degree of tension. The first strand centers on the main policy discussions around RECs in the 1980s, which emphasized the burden of over-regulation on the activities of biomedical researchers and the need for a solution. For example, in 1980, the Central Ethical Committee (CEC) of the British Medical Association (BMA) became interested in the

REC system in the NHS, carrying out a survey of the composition of these committees, and raising issues—in keeping with broader complaints in the medical literature—about the variable composition, expertise and remit of RECs (Anon. 1981). The ensuing debate between the CEC on one side (advocating the need for a central research ethics committee to standardize practice; e.g. CEC 1983) and the RCP on the other—supported by a sceptical MRC (see notes to supporting material in Harvard 1985) —opposing centralization and speaking up for local ethics review (e.g. Godfrey 1985), emphasizes the long-term benefits to researchers of having locally based (rather than central) ethics review. While the BMA’s call for a central committee was ultimately unsuccessful, the complaints from researchers and members of RECs about variability in ethics review of multicenter research highlighted the need for further standardization. (Allen, Waters, and McGreen 1981; Anon. 1983; Nott and Steel 1988).

In tension with this, a second strand of thinking arose out of broader developments in the 1980s intended to limit the power of the medical profession, most obviously through the introduction of “professional” nonmedical managers within hospitals (Harrison and Ahmad 2000; Harrison and Lim 2003). The development of the Red Book therefore needs to be seen, in part, as a consequence of these changes. A former civil servant in the DH closely involved in drafting these guidelines commented on this transformation:

So we had a permanent secretary who was the top civil servant and on the Department of Health we had a deputy permanent secretary or someone who had permanent secretary status who was always a doctor, so we found as civil servants we had to walk gently, sometimes hand in glove with the medical profession, but in the 80’s a number of things began to happen... there was almost as I recall, an upsurge of you could almost call it consumer rights demands.

Changes in the research ethics review system were not caused by research misconduct, but rather by concerns about patients’ consent to clinical treatment. The same interviewee spoke of

a number of people going through hospitals who were getting treatment which was outside what they were expecting, and in one case we were told that a female consultant, in order to teach the young male doctors, was allowing them to examine, without consent, females who had been anaesthetized, and the junior minister we had at the time was Edwina Currie...and she went ballistic when she found this out. She

said, “That is indecent assault. If ever I hear of anything like this, I will notify the police.”²

As a result, the DH drafted a set of guidelines for “Consent to examination or treatment” which sought to set out what kind of information patients should be told prior to treatment and to provide a model consent form (Guardian 1988). The reaction of the medical profession was, perhaps predictably, unfavourable, with the President of the RCP noting that “it was evident the guidelines had not been written by the profession” (RCP 1989), and my interviewee recalling a meeting with medics where “one of the medical knights spluttered and he said, ‘But do you not realise...if we tell these people what we want to do, they bloody won’t let us do it!’ ”

Against this background, where the perception on the part of some civil servants was that “the ethics committees at the time were set mainly to protect the interests of the profession, to make sure that a doctor did not do something which would bring his profession into disrepute”, debates about consent to *clinical* interventions provided an opportunity to shape the regulation of medical *research*:

the breakthrough came when having established consent to treatment a number of people were saying that [consent] should also extend to research ethics and if people are going to go in for a study, they should be told what the risks are.

While, of course, there were a number of guidelines for ethical research— “every Royal Medical College probably had its own codes of ethics” —the focus of this regulation “was on correct behaviour within the profession and what good would the research do for the profession.” When it came to the interests of patients, “In the long term, they [i.e. doctors] would say, ‘This is also good for patients,’ but the patient or individual never seemed to be at the forefront.” Thus standardization of clinical ethics in the form of the “Consent to examination or treatment” provided an opportunity to standardize *research* ethics, through introducing guidelines for RECs. Within the broader context of the time, the Conservative government’s desire to limit the freedom of the medical profession was less to do with serving the interests of patients and more about taking advantage of “the opportunity to make it [the profession] more biddable to rising managerialist and budgetary pressures within the NHS” (Dixon-Woods, Yeung, Bosk 2011: 1457).

These two strands of thinking—the need to standardize to protect the interests of researchers and to reduce the influence of the medical profession—came together in the “Red Book,”

which marked the point where power over the shape of ethics review shifted from the medical profession (in the form of the RCP) to central government. While the RCP continues to publish updated versions of its guidelines for RECs, they have become progressively “written out” of the formal account of ethics review. For example, the Red Book itself refers to “Guidelines on research ethics...also produced by various professional and commercial organizations” listing the RCP, MRC and other bodies (Department of Health 1991: 18). In 2001, the preface to the guidelines set out in the *Governance arrangements for NHS Research Ethics Committees* mentions “collating current advice on particular ethical issues, as issued by the Department of Health itself, or by august bodies such as Royal Colleges, Research Councils or appropriate professional organizations” (Department of Health 2001a). By 2011, the revised version of this document makes no mention of the RCP or its guidelines, despite their recent updating (RCP 2007).

This overturning of the original actors in charge of shaping these regulations is in keeping with theories of gradual institutional change. While the Department of Health hardly conforms to a typical “loser” in the initial policy discussions about ethics review, their self-imposed unwillingness to take charge of RECs means that they ceded control over the design and nature of ethics review to the elite medical profession, most obviously in the form of the RCP. As we might expect, however, “it sometimes happens that actors who are not part of the ‘design coalition’ may nonetheless find ways to occupy and redeploy institutions not of their own making” (Thelan 2009: 491). In contrast to punctuated equilibrium where change is largely driven by external events (such as research scandals) this analysis provides a more internal account, an example of how “actors are always trying to bend the institutions and reinterpret the rules to fit their interests and goals” (Thelan 2009: 491).

In contrast to the steady elaboration of rules involved in the layering process, the next change to the institution of ethics review—the introduction, in 1997, of Multicentre Research Ethics Committees (MRECs) —involved the process of “displacement” whereby “new institutions are introduced and directly compete with (rather than supplement) an older set of institutions” (Mahoney and Thelan 2009: 16). Despite the formal standardization introduced by the Red Book, individual medical researchers continued to complain about the variability in response and burden of applying to a large number of LRECs (e.g. Alberti 1995. See Marritt 1997 for a sympathetic response from within the DH). As a result, and, as one interviewee put it “largely driven by the fact that the Minister sees pharmaceutical research as a good money-spinner for

the UK... they've [the DH] tried to tighten up on the time limits, and to slacken down on the bureaucracy". MRECs were set up to review research taking place at more than 4 different sites, allowing a single application to gain approval for multisite research.

The form MRECs took resulted from a series of meetings, between November 1994 and December 1995, of the Chief Medical Officer's "Consultative Group on Research Ethics," the committee convened to draw up guidelines for the review of multicenter research. Briefing documents for the Group make clear the "researcher-centric" nature of the overall process, that the:

reasons for streamlining the system for LREC review of multi centre trials...[are]...To contribute to improved clinical outcomes by approving potentially beneficial research more efficiently...To reduce delays to good research...[and]...To avoid a large number of LRECs all devoting time to the same aspects of identical protocols (Department of Health 1995: 1).

Exactly *how* ethics review should be "streamlined" was a more open question for the consultative group, with a number of approaches offered to them. These ranged from a "lead" LREC taking charge of review of a multicenter application (with other committees allowed to diverge from its decision) to a central committee to a series of regional RECs (Department of Health 1995: 3-8), with this latter choice providing the chosen solution (NHS Executive 1997). In keeping with the limited value placed on consumer interests in previous changes, while the Consultative Group included representatives from CERES (Consumers for Ethics in Research: see Pfeffer 2011), a group offering advice to people enrolling in medical research studies, the pro-researcher tone of the final document meant that CERES requested the removal of its name from the final report, since it failed to adequately represent its views (Alderson 1996).

In line with expectations about the impact of such displacement, the introduction of MRECs produced clear competitive tensions with LRECs which, because of the nature of the arrangement, still retained veto power over local implementation of regionally approved research (for a discussion see Ashcroft 2003). However, over time, the institution of multicenter research ethics has come to displace the formal primacy of local review. RECs in the NHS have dropped the "L" or the "M" designation and almost all of the RECs currently listed as operating in the NHS are approved to carry out review of multicenter research (now

defined as taking place in more than one site). While of course research at single sites—the kind of thing that LRECs used to review—still gets reviewed, the institutional rule of multicenter review has displaced local, single site review.

Research scandals as drivers of change?

As noted above, in addition to the idea that changes in ethics review systems should be driven by research scandals, there is a second (closely connected) expectation arising out of the punctuated equilibrium model, that research scandals, when they happen, should be followed by significant changes to the regulatory systems (usually tightening up perceived defects). This section explores this second expectation, arguing that while it is clear that research scandals have occurred in the UK over the past forty years, they have not served to reshape the institution of prior ethics review in the manner this approach would suggest.

The first case that tests the role of research scandals in the development of ethics review is that of Phillip Jones, a 21 year-old medical student at Cardiff University, who in July 1984 died from aplastic anaemia, a disease of the immune system, nine months after taking part as a healthy volunteer in a trial for the Roche drug Midazolam (Toynbee 1984; Hoyland 1985). As a result of this and concerns surrounding the death of a volunteer in a trial in Dublin (Darragh et al 1985), the Secretary of State for Health asked the Medicines Commission (the UK's then drug licensing authority), which in turn asked the Royal College of Physicians, for advice (Veitch 1985). The resulting RCP Working Party on Research on Healthy Volunteers produced a wide ranging report, including a discussion of the role of ethics committees in the approval and oversight of volunteer studies (RCP 1986: 250-251). This “excited considerable debate amongst workers in the field” (Orme et al, 1989: 125) with industry commentators describing its suggestions as “sensible and realistic”, with “comments on financial and other inducements involved with volunteering...in line with other guidelines” (Harry 1987: 379).

The major challenge of the report to existing practice was the emphasis on the need for adequate scientific review of phase 1 studies; yet, as commentators noted, “Many ethics committees are quite simply not qualified to do [this]” (Anon. 1986: 901), because the required expertise in pre-human toxicology resided not in academia but “largely in the industry or the Civil Service” (Vere 1987: 376). The Working Party's solution was for this independent scientific review to be carried out by the Department of Health's “Medicines Division...[which]... appear[ed] to be a suitable organization to undertake this review” (RCP

1986: 250). However, while the Medicines Commission's subsequent advice to government took on board many of the RCP's suggestions (around compensation for injuries sustained by healthy volunteers for example), there was a conspicuous silence on organized support for scientific review, with the Commission rejecting statutory regulation of volunteer studies, suggesting instead there was a strong case for "a better system of self-regulation" on the part of companies and researchers (Medicines Commission 1987: 6). A research scandal resulting in minor changes to the regulatory system, in keeping with other guidelines, and with possible major revisions explicitly rejected is not what one would expect were the punctuated equilibrium model to accurately describe changes in research ethics review.

The second example of a research scandal where we might expect an impact on ethics review is that of the Continuous Negative Extrathoracic Pressure or CNEP trial which ran between 1989 and 1993 in Stoke on Trent in Staffordshire, trying to discover whether newborn babies with breathing difficulties did better in incubators with lower than normal air pressure. Following complaints from parents that they were unaware that their children had been enrolled in experimental treatment, a number of enquiries took place. The focus for this discussion is the so called "Griffiths report" (Jones 1999) and its conclusions regarding the research ethics review of the CNEP trial and subsequent implications for the regulation of medical research.

In reviewing the decision by the North Staffordshire LREC in 1990 to approve the CNEP trial, the Griffiths' report, while critical of the LREC's apparent lack of awareness about various (albeit informal) guidelines for REC practice (such as the RCP reports) acknowledges that "this [awareness] would not necessarily have been generally expected in the early 1990s" (NHS Executive West Midlands Regional Office 2000: 11). While various other aspects of the Griffiths' report have received considerable detailed criticism (e.g. Hey and Chalmers 2000), the view that the LREC in question made a reasonable decision given the standards of the time, has provoked little debate.

However the panel did find "that research governance, including practice and policies in individual trials, as well as in the Trust generally... did not match what would now be considered best practice". As a result a key recommendation was "that formal guidance on research governance within the NHS be developed" (NHS Executive West Midlands Regional Office 2000: 5). The resulting document, the Research Governance Framework for

Health and Social Care (DH 2001b), which set out overall accountability for research and its oversight within the NHS, might be seen as a typical bureaucratic response to a research scandal, yet the timing of this document is ambiguous. While the standard account of its development suggests that it is a direct consequence of the review of events in Staffordshire (e.g. Dixon-Woods and Ashcroft 2008, Biggs 2010), the Griffiths panel itself, in a response to criticism of its work, make clear that while “The most important conclusion of the review was that there needed to be a new research governance framework” the panel itself was “well aware that the Department of Health *was already working on the production of a new framework*” (Griffiths, Stacey, and Struthers 2000, emphasis added). The Panel’s recommendation for the revision of research governance in the NHS was *not* an original consequence of the CNEP-scandal, but rather fed into changes that were already underway, and indeed were in part shaped by broader regulatory changes at a European level (Shaw, Boynton and Greenhalgh 2005), rather than a national research scandal.

For RECs, these changes are embodied in the Governance Arrangements for Research Ethics Committees (GAfREC) document setting out what was expected from NHS research ethics committees within the context of broader research governance, and resemble the “layering” approach to gradual change offered in the 1970s and 1980s. Many of the rules being set out (around membership for example) were already in use in the MRECs (which were directly accountable to the DH); the GAfREC document simply provided an opportunity to expand their remit to the locally organized LRECs, increasing the standardization of REC practice, not through a large-scale upset, but rather by rolling out pre-existing rules.

At around the same time as the investigation into the CNEP trial was taking place, concerns arose around the retention of children’s organs, over a period of decades, by several institutions (mainly in Liverpool), including The Royal Liverpool Children’s Hospital at Alder Hey (Dewar, and Boddington 2004; Seale, Cavers, and Dixon-Woods 2006). While the formal enquiry into these events—the so-called “Redfern report” —makes clear that in some cases tissue and organs were stored because of a backlog in post mortems, and despite the majority of commentary discussing these events (and their consequences) in terms of clinical practice and outcomes (e.g. Bauchner and Vinci 2001; Hall 2001) Alder Hey needs to be seen as a high profile research scandal. The majority of the foetuses, hearts, brains and other body parts collected—without parents’ knowledge or consent—were done so at the request of

Professor of Pathology, Dick van Velzen,: “in every case for the overriding purpose of research” (Redfern 2001, summary p.9).

Policy responses to Alder Hey led to the 2004 Human Tissue Act (HTA) about which there has been an extensive debate, both in newspapers and the medical literature, in terms of its impact on research, pathology and organ donation rates (Boseley 2002, McHale, Habiba, Dixon-Woods, et al 2007, Underwood 2006). However, while the Alder Hey scandal can legitimately be seen as an exogenous shock to various medical institutions, the impact is far broader than research ethics review or medical research, and consequent changes are the result of changes in the law rather than REC practice in particular. Whether the changes in REC practice that result from the HTA count toward the punctuated equilibrium model depends, to some extent, on one’s sense of scale. While RECs do play some role in interpreting the HTA when assessing applications (Cooke 2007), this is true of a number of different legal instruments (laws concerning data protection, or mental capacity to consent for example), and as such does not represent an institution-specific change. If research scandals were a powerful driver of change in REC practice, we would probably expect them to have most impact in the context of research regulation, yet this is not the case.

Discussion. The kinds of changes that the institution of prior ethics review in the NHS has undergone—the “layering” of additional rules in the 1970s and 1980s, the eventual displacement of one approach (local review) by a competitor (multicenter review) —are in keeping with other examples of steady, incremental institutional change. The punctuated equilibrium model of institutional change is not applicable in this case. Consequently, if the “shape” of the development of ethics review is smooth and gradual, rather than a stop-start pattern, then what role is there for the traditional “break points” suggested by the punctuated equilibrium model based on research scandals? It is not that such events do not take place, or that they remain low-key and understated; a number of cases have occurred in the UK that clearly fit the description of a research scandal. However their impact on the development of the institution of research ethics review has been limited, tending towards minor revisions or restatements of pre-existing rules, rather than reconstruction of the institution as a whole. This pattern remains true for the case of more recent changes in the ethics review system such as the European Clinical Trials Directive (Hedgecoe et al 2006) and disasters such as the TGN1412 clinical trial (Hedgecoe 2014). This insight flows directly from the methodological approach adopted in this paper, suggesting that claims about the drivers for regulatory change

need to be based on research—whether it is archival, interview based or ethnographic—that opens up the “black box” of policy decision making. Claims based simply on the external “outputs” of such decisions need to be treated with caution. In terms of broader significance, a key insight of this paper is that changes may be misattributed to external events (shocks, punctuation marks) but that a finer-grained study of organizational history and process reveals an underlying current of change that is driven by quite different forces.

More broadly, looking beyond the regulation of research, there is a clear tension between explanations offered for changes in the regulation of medical practice in the clinic—which is driven by reaction to scandal (Dixon-Woods, Yeung, and Bosk 2011)—and the regulation of medical research, which, my argument suggests, is curiously resistant to changes in response to scandal. One obvious explanation for this contrast is that the key feature of the professional self-regulation of clinical practice, the feature that came under most pressure from clinical scandals, is the implicit contract between the medical profession, the public and the state. Yet such a contract is much harder to argue for in the context of medical research, not least because:

“Medical research can no longer be understood as an activity only carried out by doctors on a single register bound by a common ethical code; rather, it is now part of a more general enterprise of research in healthcare that lacks a unitary professional structure. Researchers make many claims for the professional features of the work they undertake, but they do not display the characteristics of a single profession” (Dixon-Woods and Ashcroft 2008: 385).

One consequence of this, with ethics review as a form of “professional self-regulation without a profession,” is that the overall aim of such review centers on the needs of researchers and research funders, as opposed to the idea that ethics review is driven by the need to increase protection for research subjects. While one might argue that with centralization and standardization, over time, the ethics review system has moved away from the exclusive control of medics (in the form of the Royal College of Physicians, for example) and thus should act less in the interests of researchers, the medical profession has been replaced by the Department of Health, which has clear interests in supporting researchers, especially those funded by the pharmaceutical industry (Abraham 2009). In the NHS at least, the broader characteristics of modern pharmaceutical regulation—for example, the overall pro-research shape of the regulatory system—will be reflected in the way in which prior

ethical review is organized, although, of course, not necessarily in specific decisions made by individual committees.

Whether the gradual nature of regulatory change characteristic of this case—the UK NHS—is true of research ethics review in other jurisdictions has to be dealt with as an empirical question rather than an act of faith. As I have pointed out elsewhere (Hedgecoe 2012) a key flaw in much of the social scientific analysis of research ethics review is an “assumed isomorphism,” the unquestioned assumption that ethics review systems in one country necessarily mirror those in another, that, regardless of differences in organizational context, history or structure, the challenge of ethics review must be the same, wherever it takes place. Indeed, given the broad sweep of the claims made by those arguing for a punctuated equilibrium model of ethics review systems and their use of evidence from a range of different countries (see for example Fitzgerald 2005) to generalize about the way ethics review changes, it seems likely that assumed isomorphism is an explanation for why the punctuated equilibrium model fails to accurately describe the way ethics review in the UK has developed over the past four decades.

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¹ The origins of the PA lie in the whistleblowing work of Dr. Maurice Pappworth and thus provide one of the few examples where public scandal fed into policy debates around research ethics review in the NHS (Pappworth 1962; 1967; see Hodgson c.1963 on Pappworth’s role in inspiring the PA)

² Such threats were in keeping with Currie’s reputation. At the time a junior minister for health in the Conservative government, she had an unusually high public profile, and a persona as a robust and forthright figure (Currie 1990).

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