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Epilogue: Transnational comparisons of Shifting Electricity- Energy Narratives

Abstract

In contrast to Thomas Hughes' classic systems theory published as *Networks of Power* exactly 40 years ago, the collective import of this volume's assembled scholarship is to highlight the role of cultural contingency (vis-à-vis technological momentum) in the take-up of electricity. The acceptance, or rejection, of electricity was linked both to existing power structures and also to cultural needs for adapting to changing circumstances. Even across four countries (only one of which was addressed by Hughes in 1983) the success of electrical schemes was due more to the malleability of electrical ventures to adapt to shifting social needs than to the technocratic top-down schemes of entrepreneurs and electrical engineers.

- 1 The papers in this special volume on the theme of ‘Shifting Narratives of Electricity and Energy in Periods of Transition’ adeptly explore the cultural assimilation of electricity across four national-cultural contexts: India, Ireland, Spain, and the UK. In cutting across two centuries (19th C and 20th C) and between two continents (Europe and India) this collection extends beyond *Networks of Power* the late lamented Thomas Hughes’ explicitly Western-focused comparative study of electrical power systems in several significant ways published forty years ago. His narrative argued for the leadership of the US as the exemplar for all nations to follow in the process that has rather awkwardly and teleologically been labelled “electrification”. While we surely owe much to Hughes in moving electrical history beyond the narrow limits of nationally-limited economic- and or artefactual- histories, four decades after the publication of *Networks of Power* the multi-national historiography of electricity has manifestly moved on in quite extraordinary, subtle, and indeed powerful ways. What we can now do in the light of the scholarship of Chatterjee, O’Brien, Perez-Zapico, and Sayer is to ponder anew transnational and transhistorical comparisons of how and why electricity was ever taken up, eschewing the assumption that any of this was inevitable, let alone driven by the inexorable logic of growing technological systems.
 - 2 Among this volume’s collection, for example, there is no suggestion that the US case was (even implicitly) relevant as a model or comparison points for developments in any of the nations or regions covered. Moreover, in contrast to Hughes’ account, engineers and fellow technocrat-system builders were by no means fully in control of the processes of building electrical supply discussed by our four authors. The take-up or resistance to electricity as a motive power/cultural agency is seen instead through the operation of geographically localised or culturally-specific forces in selecting and shaping which domains were electrified and when, and why only certain electrical technologies come to be used, and only to at least some extent within the time periods chosen.
- Whatever technological systems – or indeed figurative anthropomorphisations – of electricity supply were to some extent successful, the historians writing here carefully construct their explanations by referring instead to assimilation to, and or co-evolution with their host cultures – not to a systems blueprint set by Thomas Edison or George Westinghouse (and their US employees). So to reiterate: the titular shifts and transitions highlighted in this collection’s papers are not changes obviously geared to the growth or increased momentum of electrical supply systems: decisions were taken at a micro-level to accept or not accept specific electrical technologies. The era of grand system-centred narratives is surely now over if we are prepared to accept the implications of dropping the assumption of the inevitable success of “electrification”.
- 3 What then are the broader lessons of such post-Hughesian narrative? There are at several modalities of comparison – in chronological, cultural, and geopolitical forms – that can help us to draw out the implication of these four evocative papers, each of which show how in quite variegated ways electricity could facilitate social-infrastructure transformation but was not guaranteed to do so. First among these is the influence of religion, especially Roman Catholicism, on the take-up of electricity in Ireland and Spain – nations that came relatively late to the process of industrialisation, as documented by Perez-Zapico and O’Brien. In their papers we see that the rituals, precepts, and power relations embedded in traditional Catholic culture were not (uniformly) conservative. Instead, surprisingly to some, these theocracy of Catholicism could be positively enabling of electrical initiatives. In Spain, while engineers (including a coterie of anarchist practitioners) took on the challenge of building regional electricity networks after the post-imperial “disaster” of 1898, it was Catholic authorities that sanctioned the deployment of electrical technology to protect older forms of life. Tying the deployment of electricity to supporting craft activities in villages and the rejuvenation of traditional family life in the home turned it figuratively into

a counterforce to the corrupting secularising forces of industrial ascendancy that had been unleashed across so many Spanish cities by the early twentieth century.

4 Two generations later in rural 1950s-60s Ireland, O'Brien show how similar Catholic values prevailed in favour of electricity, but for very different reasons. In the cultural context of post-independent Eire, women's roles were circumscribed to motherhood and housework by the patriarchal authority of the priesthood; hence intense manual labour in home-making was the norm for the vast majority of Irish women, especially in rural areas. Nevertheless, the promotion and adoption of "labour-saving" electrical devices in the rural Irish home – especially for cleaning and laundry – made housework significantly less burdensome. So much so, O'Brien argues, that there was a marked and welcome decrease in the number of younger women emigrating to the UK or US for more congenial lives and careers beyond the domestic sphere. Far from being a force for enacting the alienating effects of soulless modernization, then, electricity installations in Ireland thus indirectly enabled cohesion and continuity in Irish country life even in times of great social upheaval. Catholic patriarchy thus not only survived but thrived with the adoption of electricity in Spain and Ireland.

5 To continue the study of the countryside between O'Brien and Sayer's accounts we can see how – again in contrast to Hughes – the non-metropolitan domains of traditional agricultural life were crucial forums for establishing the multifaceted legitimacy of electricity. After all, the modern nation-state has never been defined just by the boundaries of its biggest cities. Thus in order for the whole of Ireland and Britain to receive any benefit from electrical power grids, it was axiomatically necessary for farms and villages across the land to assent to the process of electrical cables being laid so that both domestic and agricultural consumption were facilitated. While in Hughes' account this would be a matter of the unstoppable "momentum" of electro-technological supply systems naturally and inevitably

extending beyond the civic domain, O'Brien and Sayer both point us to more subtle cultural phenomena. There were reasons for the success of rustic electricity pertaining in Ireland to solutions to the demographic problem of de-population (O'Brien), and in Britain to the needs for the cattle farm to recalibrate its efficiency and productivity by use of every usable artifice (Sayer). The message of Sayer's account is that we must not be as anthropocentric as Hughes in understanding where and when electricity was installed: cows mattered at least as much as humans in the transition to ubiquitous electricity.

And need it be said that completely absent from Hughes' US-centred study of electrical systems is the grim politics of colonial and post-colonial development. In Chatterjee's account we can see brutally laid bare the unhappy finding for electrical supply companies that even in some of the largest imperial metropolises, electricity did not by any means find a ready welcoming home. Chatterjee shows, for example, how one British-colonised Indian city of Calcutta/Kolkata did not embrace the opportunities of electricity with ready enthusiasm. The electrical gadgetry of air-conditioning could only be installed at the cost to the lives and livelihoods of Indian punkah-wallahs: their bodies and traditional labour had to be stigmatised to an extreme and often deadly degree to motivate any mass take-up of and installation of the automated "Electric Punkah". The brutal stories that Chatterjee relates not only illustrate the extreme violence that British colonial powers were prepared to use to effect some kind of some scale electrification, but also the resilience of an Asian culture that was already highly stable and successful without electricity. As a background to Chatterjee's account, we see how traditional forms of Indian life could be sustained quite effectively – and for politically/economically important reasons – by forms of traditional energy consumption that did not rely on an imposed infrastructure of electricity. In imperial India the cultural priority of indigenous populations was to maintain high levels of indigenous employment of punka-wallahs

rather than replacing that labour needlessly with the contrivances of electrified air-conditioning machinery. As we already seen however, in post-independence Ireland the opposite gender consideration was the case in accomplishing cultural continuity: in order to maintain anything like traditional forms of Irish rural life, the role of electricity was to *take away* some of the much-resented labour of constrained domestic female roles. Here we see a stark cultural contingency in the success of electrification schemes: electricity *only* became part of everyday life if it served the purposes not only of anonymous systems managers, but also of the majority ordinary hard-working people.

- 7 Overall, while the adoption of electrical techniques in each of the four countries was partly in line with existing power relationships, it nevertheless also clearly helped contribute to some shifts in those power relationships insofar electricity was available in more spaces to more people for more purposes. And thus, the tensions in the unsatisfactory term “electrification” are brought to the fore in this set of papers: if taken seriously at face value, that polysyllabic cliché implies both a process of increased adoption and usage of electricity without any necessity for human intervention, agency, or discretion, and indeed a process that seems an inevitable unfolding of technological necessity. We see from this volume’s papers, however, that the extent to which cultural and historical *happenstance* was involved entails that the assumptions embedded in a strong construal of “electrification” were not borne out in practice. We might instead seek to use the languages of “deployment of electricity” or “electrical reconfigurations” or “cultural engagements with electricity” to characterise the tentative, partial and (sometimes) reversible transitions involved. And perhaps by that kind of shift of terminology, we might better understand the shifting narratives of electricity and energy covered by our authors addressing multiple periods of transition in diverse cultural milieux. Therein lies something like a replacement narrative for the Hughesian culture-free deterministic growth of electrical supply systems.



Figure 1: *La Ilustración Artística*, Madrid (nº 139, 25 October 1884, 276).

- 8 Finally, to explore a less tangible transnational issue in electrical cultures, let us return to the Illustration of woman as electricity featured on the front cover of this issue. What is credited to *La Ilustración Artística*, Madrid (nº 139, 25 October 1884, 276) was actually drawn from a German source Ludwig Kandler’s *Das Elektrische Licht* (*The Electric Light*) published in the very same year. This feminised personification of electrification is both fascinating in itself, and yes also just one example of the multifarious cultural manifestations of anthropomorphised electricity. This image shows a female transcultural agency descending from the heavens, floating among the courses, enables both telephonic communication between cherubs and powering electric incandescent light above her head. This gesture of light held about the head is the classical iconography of truth (see Gooday, *Domesticating Electricity*) – as if somehow other forms of lighting (gas, candle, paraffin) lacked this classical epistemological credential of cultural integrity.

- 9 More importantly for our authors, this image of a feminized electrical agency is culturally quite specific: it captures in very traditional gendered ways a heavily gendered (perhaps Catholic?) image of a mother figure with bared breasts to show her capacity for maternal nurturing of all around her. Far from the secular masculine force of electrical engineering that preoccupied Thomas Hughes, we see here instead the figurative magical representation of electricity anthropomorphised as a benign feminine agency. It is in the fantastical imaginary of this female figure and her compliant cherubs that we find the allowance for contingent cultural variation and development in electricity to arise between national narratives with their diverse religions. Where was the flexibility to allow for cultural transition change to occur with electricity? Instead of relying on their narrative logic of inexorable system growth, technocratic promoters of electricity evidently found it more expedient to deploy the comforting image of a tamed transcendent force of electricity behaving benignly, as if a feminized hybrid goddess-servant-mother figure. The take-up of that most “modernizing” of energy technologies, electricity, thus looked back to ancient matriarchal icons of virtue, fertility and utility.

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