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Constitutional lessons from the debates over precaution *versus* economic growth in domestic mobile telecommunications law

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Abstract

Regulatory policy in mobile telecommunications has been framed as balancing the permitted private governance of the electromagnetic commons, and the subsequent growth of a dense mobile telecommunication system, with what the Government has referred to as a precautionary regulatory approach, which in practice means a technically-framed, largely non-justiciable form of industry self-regulation. Concerns about the resulting 'balance' are fourfold. First, it rests upon a questionable narrowing of the regulatory debate by means of technocratic framing that in turn arises from an inadequate concept of precaution. Second, this framing obscures a deeper redefinition, through governance, of significant relations between state and individual to the detriment of the latter and to the advantage of private 'benefit' providers. Third, this redefinition is effected by the executive's delegation of the governance of a key resource to private actors, its determination of material benefit and (thus far) by a judicial restriction of the right to meaningfully contest the avoidable imposition of risk. Fourth, a policy priority that underlies this implicit redefinition of constitutional relations is a perceived need to attract inward multinational corporate investment while simultaneously avoiding prospect of capital flight and any resultant loss of political legitimacy. The outcome of this constitutional shift is essentially a form of investor-led law reform reminiscent of Victorian Britain. The notion that restrictions on individuals' ability to resist the imposition of unconsented-to risks for private gain may be in the 'national interest', taken together with ongoing discussions in the present Government on how to further 'streamline' planning in response to the projects of major investors, underscore an outstanding legal and political need to clarify the basic duties and powers of a democratic state in an age of globalisation and privatisation, along with the proper means by which the national interest may be publicly articulated and debated.

Global economic liberalisation since the 1970s has witnessed the remodelling of the state toward being a facilitator of markets in which economic growth and consumer choice have become ruling political goals.[1] Permitted private governance of key resources within 'light touch' regulatory schemas, reminiscent of the corporate administration of utilities in Victorian Britain,[2] is making a return. Such governance is said to facilitate greater efficiency in securing economic growth, job provision, the satisfaction of certain consumer needs and national competitiveness in global markets.[3] At the same time, this re-shaping of the role of the state has not gone uncriticised. It is said to undermine prospects for the meaningful democratic governance of these resources given *inter alia* corporate actors' immunity to judicial review, market regulators' contested transparency and accountability, and continuing difficulties concerning corporate and state liability.[4]

The difficulty of reconciling policies of efficiency and growth with democratic imperatives is compounded when privatised governance harms and/or risks causing harm. Regulatory reliance on technical expertise to determine harm and risks[5] and continued party political consensus over the role of the state in facilitating economic growth[6] suggest that, in the development of state policies committed to privately-determined economic growth, the tension between the government's duty to protect citizens and its aim to promote their economic liberty appears set to remain.[7]

A case in point is mobile telecommunication development in the UK. It is possible to state without risk of exaggeration that rarely before has a technology that exposes virtually the entire UK population to its emissions and yet has only been subject to few studies of potential adverse health risks ever been

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[1] R. Lee and E. Stokes, 'Environmental Governance: Reconnecting the Global and Local' (2009) 36(1) *J. of Law and Society* 1; A. Bradley, and K. Ewing, *Constitutional and Administrative Law*, 13th edn (Pearson Longman, 2003) 290; M. Pollitt, *A Survey of the Liberalisation of Public Enterprises in the UK since 1979* (Cambridge University Press, 1999) 1-2; J. Black, 'Tensions in the Regulatory State' (2007) Spring *Public Law*. 58, at 58-63.

[2] E.g., P. Craig, 'Constitutions, Property and Regulation' (1991) Winter *Public Law* 538, at 540-1.

[3] C. Harlow, 'Back to Basics: Reinventing Administrative Law' (1997) Summer *Public Law* 245, at 246, 248, 250; B, Epstein, *Simple Rules for a Complex World: Questioning the Effectiveness of Regulation* (Harvard University Press, 1995).

[4] E.g., K. Ewing, 'The Politics of the British Constitution' (2000) Autumn *Public Law* 405, at 436; J. Dewey in R. Westbrook, *John Dewey and American Democracy* (Cornell University Press, 1991), pp. 440f., 176f., 225f, 249, 453; Harlow, op. cit., n. 3, p. 248; Bradley and Ewing, op. cit. 1, pp. 287-304.

[5] E.g., C, Hood, H. Rothstein and R. Baldwin, Robert *The Government of Risk: Understanding Risk Regulation Regimes* (Oxford University Press, 2001) 381-4; J. Black, 'Tensions in the Regulatory State (2007) Spring *Public Law* 58, at 67-9; W. Ruckelshaus, 'The Scientific Predicate of Environmental Regulation: Risk Assessment' in *Foundations of Environmental Law and Policy*, ed. R. Revesz (Oxford University Press, 1996) 48-52.

[6] Harlow, op. cit., n. 3, pp. 245-6.

[7] See, for example, Ewing, op. cit., n. 4, p. 433.

rolled out as rapidly as mobile telecommunications.[8] Operating by transmitting digitally-encoded information between handset and base station on the microwave bandwidth (radiofrequency radiation) of the non-ionising section of the electromagnetic spectrum,[9] mobile phone use is linked to a dense network of over 48,000 base stations[10] which, with there now reportedly being more mobile phones than people in the UK,[11] is set to quadruple in number with the rollout of new services.[12] Despite assurances from Government and industry that precautionary measures ensure that the technology presents no risk to the 'general population',[13] the scientific evidence base remains contested. Many regard current measures to be questionable in light of a growing body of research into possible adverse health effects from exposure to these electromagnetic fields.[14] To the extent that the irradiating populations has yet to be proven 'safe', the rollout is essentially an experiment.[15]

Whilst long-standing public and parliamentary concerns about safety in the UK and across Europe continue to rise,[16] the scope to object to base station erection on safety grounds is increasingly

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[8] See, for example, ECOLOG-Institut, *Mobile Telecommunications and Health: Review of Current Scientific Research in view of Precautionary Health Protection* (Hannover: ECOLOG-Institut, 2000), s.1.1; IEGMP, *Mobile Phones and Health: Independent Expert Group on Mobile Phones* ('the Stewart Report') (Department of Health, 2001), p. iii and s.1.16.

[9] See IEGMP, op. cit., n. 8, ss.1.3, 1.6, 2.13. Similar wireless devices include WiFi and WiMax, digital cordless phones, 'smart' meters and TETRA (a police communication system).

[10] J. Askew, 'Mobile Phone Masts: the Role of Planners in Resolving Conflict' (2006) July *J. of Planning and Environmental Law* 929, p.929.

[11] *House of Commons Early Day Motion* 67 "Mobile Phone Masts" (April 19, 2006; Greg Mulholland MP); Askew, op. cit., n. 10, p. 929.

[12] Askew, op. cit., n. 10, p. 929; House of Commons *EDM*, op cit., n. 11.

[13] See Planning Policy Guidance 8 (below).

[14] For an overview of recent research, see, for example, http://www.powerwatch.org.uk/science/studies.asp, the BioInitiative Report (http://www.bioinitiative.org/freeaccess/report/index.htm accessed 10 June 2012) and below.

[15] O. Johansson, 'How Shall we Cope With the Increasing Amounts of Airborne Radiation?' (2006) 25(3) *J. of the Australasian College of Nutritional and Environmental Medicine* 5.

[16] See below and, for example, A. Dode *et al.* 'Mortality by Neoplasia and Cellular Telephone Base Stations in the Belo Horizonte Municipality, Minas Gerais State, Brazil' (2011) 409(19) *Science of the Total Environment* 3649; B. Levitt and H. Lai 'Biological Effects from Exposure to Electromagnetic Radiation emitted by Cell Tower Base Stations and other Antenna Arrays' (2010) 18 *Environmental Review* 369; O. Johansson, 'Disturbance of the Immune System by Electromagnetic Fields—A potentially underlying Cause for Cellular Damage and Tissue Repair Reduction which could lead to Disease and Impairment' (2009) 16(2-3) *Pathophysiology* 157; U. Warnke, *Bees, Birds and Mankind: Destroying Nature by 'Electrosmog'*. Effects of Wireless Communication Technologies Series (Competence Initiative for the Protection of Humanity, Environment and Democracy: Frankfurt, 2009) (http://www.kompetenzinitiative.net/broschuerenreihe/brochure-series/index.html accessed 1 February 2012); J. Walls *et al.*, 'The Meta-Governance of Risk and New Technologies: GM Crops and Mobile Telephones' (2005)

restricted (see 'Legal Framework', below). Restrictions on public representation can be usefully understood with reference to the terms of public debate set out in Government policy. From the outset, debates on the technology have been presented as being one of striking a balance between "encourag[ing] and facilitat[ing] the roll-out of modern, national telecommunications network" without delay, thereby ensuring the public "enjoy the benefits… both to business and through increased job opportunities" and the Government's "commitment to the achievement of environment and health and safety objectives."[17] The "tool for striking that necessary balance is", as former Under-Secretary of State, Beverley Hughes points out, "the land-use planning system"[18] which regulates the use of land in the public interest. It is, according to former Under-Secretary of State, Jim Fitzpatrick, within the context of this balance between economic growth and precaution, affirmed in a Court of Appeal ruling in 2005 on mobile telecommunication safety,[19] that the Government's decision to disregard a subsequent proposal to strengthen in scope the consideration of health concerns in mobile telecommunication planning law (Telecommunications Masts (Planning Control) 2005 Bill) needs to be understood.[20] As former Prime Minister, Tony Blair explained, the Government believes "the evidence points clearly and surely to the fact that [mobile telecommunications] are… safe", and must "balance… people's objections and [sic] making sure we get the facilities that we need."[21]

Whilst much attention has focused on ambiguities in how far safety concerns count as material considerations in planning disputes,[22] comparatively little has been given to how the weighting accorded to them may be largely a consequence of an underlying (im)balance between contrasting policy objectives. This relative neglect is surprising given that balancing policy objectives against each other requires, this paper will argue, a concomitant rebalancing of public and private powers, rights and obligations. Accordingly, this paper reviews the status of safety issues in mobile

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8(7-8) *Journal of Risk Research* 635, p.650; House of Commons Select Committee on Trade and Industry, *Mobile Phone Masts*, Tenth Report (HC: 2001), s.1.

[17] B. Hughes, 'Mobile Phone Masts' (Parliamentary Statement) (2001) March *J. of Planning and Environmental Law* 286, p.286; see also Ofcom, "Proposals to Extend 4G Mobile Coverage", Communication (January 12, 2012) (http://media.ofcom.org.uk/2012/01/12/proposals-to-extend-4g-mobile-coverage/ accessed 15 January 2012).

[18] Id.; see also R. Ford, 'Planning for a New Telecommunications Network in the UK' (2001) September *J. of Planning and Environmental Law* 1033, p.1033.

[19] Lords Wall and Waller in *R. (Nunn)* v *First Secretary of State* [2005] EWCA Civ 101 at [1] and [41].

[20] *Hansard*, HC cols 571-2 (March 3, 2006; J. Fitzpatrick, Under-Secretary of State ODPM).

[21] *Hansard*, HC col.817 (March 8, 2006; T. Blair PM). On the 'balance', see also former Planning Minister, Nick Raynsford in Ford, op. cit., n. 18, p. 1033.

[22] For example, Askew, op. cit., n.10, p. 929; Ford, op. cit., n. 18; C. Hilson, 2004 'Planning Law and Public Perception of Risk: Evidence of Concern or Concern Based on Evidence' (2004) December *J. of Planning and Environmental Law* 1638.

telecommunication planning law with two broad aims in mind. The first is to disclose what it is that may be 'necessary' about the balance between precaution and economic growth that has been struck. The second is to identify certain constitutional implications of this balance.

Legal framework

Licences, development rights and national planning policy

Among a series of privatisations of public services in the UK during the 1980s was that of telecommunications.[23] Initially split off as a separate company from the Post Office in 1981, British Telecom's subsequent monopoly of service provision was dismantled under the Telecommunications Act 1984 in order to facilitate competition. Effected by means of a system of licences for commercial mobile phone operators,[24] allocation of licences over scarce radiofrequency has been made by auction[25] in line with other privatised utilities such as the energy and transport.[26] Since licences grant a temporary monopoly privilege on auctioned radiofrequencies, it has been a licence condition that each operator provides certain network coverage to the UK population, with '3G' licences requiring 80% coverage by 2007 and '4G' licences requiring upwards of 95% from 2012.[27] Having spent some £22.4bn acquiring licences and likely to have spent a further £15bn on their systems,[28] delayed profitability would invariably impact on operators' competitiveness domestically and internationally. Consequently, the rapid expansion of the network has been seen as much a commercial imperative as it is a contractual requirement.[29]

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[23] D. Holmes and W. Walton, 'The Use of Permitted Development Rights by Telecommunications Operators' (1996) December *J. of Planning and Environmental Law* 995, pp.996-7; Pollitt, op. cit., n. 1, pp. 1-2.

[24] Licensing covered, first, analogue in 1985, digital GSM from 1992 which by 1999 provided 97% national coverage, '3G' technology from 2001, and '4G' technology from 2012. See Ofcom, op. cit., n. 17; HC Select Committee on Trade and Industry, op. cit., n. 16, para.7; IEGMP, op. cit., n. 8, ss. 2.10, 2.11, 2.14; Askew, op. cit., n.10, p. 929.

[25] L. Moloney, "3G Mobile Infrastructure Sharing: Key Legal and Regulatory Issues" (2002) 8(1) *Computer and Telecommunications Law Review* 8, p.10.

[26] See, for example, Bradley and Ewing, op. cit. 1, pp. 295-7.

[27] Moloney, op. cit., no. 25, p.10; Ford, op. cit., n. 18, pp. 1033-4; Ofcom, op. cit., n. 17.

[28] Ford, op. cit., n. 18, p. 1033.

[29] See Holmes and Walton, op. cit., n. 23, p. 996.

The rights and obligations of licensed operators are set out in the Telecommunications Act 1984, sch. 2, and broadly reflect special rights once enjoyed by statutory undertakers.[30] Among them is the right to install apparatus on private and public land with the occupier's consent subject to planning law – although in the selection of sites, operators are required to select the 'best' rather than merely 'acceptable' locations.[31] Where landowners withhold consent, upon assessment of alternative sites operators may compulsorily acquire rights in land for base stations under the Town and Country Planning (General Permitted Development) Order 1995, sch.2 para.5.[32] In either event, full planning permission is required for base stations over 15m.[33] With the exception of environmentally sensitive areas, masts under 15m may be erected under 'permitted development rights'.[34] Such rights enable operators, Sullivan J affirms, to keep to contractual obligations.[35] Permitted development rights entitle operators, 57 days after notifying a local planning authority and subject to its decision, to erect base stations on the basis of 'deemed permission'.[36] This entitlement applies even if the authority fails to reach decision or to give the operator notification of its decision within this time and, irrespective of the merits of opposing representations, has been regarded by the Court of Appeal as compatible with the public's right to a fair hearing under the Human Rights Act 1998, art.6(1).[37]

In line with its claim that the success of the UK's mobile telecommunications industry is a matter of national interest,[38] the general tenor of Government policy for planning guidance on telecommunications, Planning Policy Guidance (PPG8), is permissive.[39] It emphasises the benefits of facilitating the expansion of the telecommunications industry and "universal access to a choice of diverse services."[40] The presumption in favour of this form of economic growth[41] requires local

[30] HC Select Committee on Trade and Industry, op. cit., n. 16, para.7.

[31] *Phillips* v *First Secretary of State and Havant Borough Council and Hutchison 3G* [2003] EWHC 2415.

[32] *St Leger Davy* v *First Secretary of State* [2004] EWHC 512.

[33] Masts smaller than 15m are subject to the Prior Approval Procedure under the Town and Country Planning (General Permitted Development) Order 1995.

[34] Town and Country (General Permitted Development) Order 1995, Part 24; see also Hughes, op. cit., n. 17, p. 286; Holmes and Walton, op. cit., n. 23, p. 998.

[35] *R. (Flora Davies) v Carmarthenshire County Council and others* [2004] EWHC 2847 at [32].

[36] Askew, op. cit., n.10, pp. 930-1.

[37] *Nunn*, op. cit., n. 19.

[38] HC Select Committee on Trade and Industry, op. cit., n. 16, para. 3.

[39] Although in 2012 the National Planning Policy Framework replaced governmental planning guidance, because the provisions in the Framework on mobile telecommunications (Objectives 95-99) are all but identical to PPG8, and because relevant case-law refers to PPG8, it is convenient for present purposes to continue to refer to PPG8.

[40] *Hansard* (Fitzpatrick), op. cit., n. 20; PPG8, paras 1-2; HC Select Committee on Trade and Industry, op. cit., n. 16, para. 12.

planning authorities (LPAs) not to question the need for the telecommunications system or to obstruct the competitiveness of operators (PPG8, para.6).

With eventual base stations numbers deemed by Government to be an "operational matter" for operators, subject to such planning constraints, where and how base stations are erected is largely at operators' discretion.[42] Such freedom from planning regulations, which is comparable with that (once) enjoyed by opencast mining,[43] has facilitated the growth of a UK mobile telecommunication industry that reportedly contributed £47.4bn to GDP in 2004 and yields some £1.3bn annually in tax revenue.[44]

National planning policy and safety concerns

Some fifteen years after the initial grant of licenses in 1985, the Government commissioned the National Radiological Protection Board (NRPB) to establish an independent expert group to review the possible effects of mobile phones and base stations on health.[45] The findings of the subsequent 'Stewart Report' published in 2000, and those of subsequent inquiries, were cautious.[46] The report concluded (a) that the reviewed 'balance of evidence' did not suggest that exposure to radiofrequency radiation below guidelines recommended by an independent organisation, the International Commission on Non-Ionising Radiation Protection (ICNIRP; incorporated in a European Council Recommendation),[47] puts the "health of the general population [sic] of the UK at risk",[48] (b) that

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[41] See, for example, Carnwath J in *R.* v. *Tandridge District Council, ex p. Mohammed Al Fayed* [1999] cited in Anon, "Radiotelephone Base Station Tower – Alleged Health Hazard" (1999) September *J. of Planning and Environmental Law* 825, p. 827; Sullivan J in *St Leger Davy*, op. cit., n. 32 at [6] and [23]; PPG8, paras 1-2; HC Select Committee on Trade and Industry, op. cit., n. 16, para. 12.

[42] Hughes, op. cit., n. 17, p.287.

[43] Askew, op. cit., n.10, p. 929; G. Lean, "Now Mobile Masts can built right next to Schools", *Independent*, December 19, 2004.

[44] Askew, op. cit., n.10, pp. 929-30; Walls, op. cit. n. 16, p. 649.

[45] The first licenses were granted in 1985 to Racal (Vodaphone) and Telecom Securicor (Cellnet) (OECD, *Regulatory Reform in the Telecommunications Industry* (Paris: OECD, 2002), p.6; IEGMP, op. cit., n. 8, s. 2.2.

[46] See, for example, NRPB, *Health Effects from Radiofrequency Electromagnetic Fields*, 14(2) (NRPB, 2003); NRPB, *Mobile Phones and Health 2004: Report by the Board of NRPB*, 15(5) (NRPB, 2004).

[47] EC Council Recommendation, 12 July 1999 (1999/519/EC) *Official Journal L 199,* pp.59-70; IEGMP, op. cit., n. 8, s. 1.14. On conflicts of interest within the ICNIRP, an organisation established by industry consultant, Michael Repacholi, see, for example, D. Maish, 'Conflict of Interest and Bias in Health Advisory Committees: A case study of the WHO´s EMF Task Group' (2006) 21(1) *J. of the Australasian College of Nutritional and Environmental Medicine* 15; and below (see also http://ollejohansson.adante.se/Anders-Ahlbom-IARC-2011-May.pdf accessed 1 April 2012).

[48] IEGMP, op. cit., n. 8, p. iii, s. 1.17

evidence suggests exposure "may cause… subtle biological effects"[49] and (c) because it is not possible to conclude that "exposure to radiofrequency radiation, even at levels below national guidelines is… without potential adverse health effects",[50] a precautionary approach should be adopted "until more robust scientific information becomes available."[51]

The apparent discrepancy between the first and second conclusions can be explained in relation to different effects attributable to radiofrequency radiation intensity (thermal) and frequency (non-thermal).[52] Whilst compliance with the ICNIRP's thermal exposure thresholds may imply no heat damage to human tissue, the thresholds do not apply to non-thermal effects about which the report was less conclusive. The relative inconclusiveness of the report is, scientifically speaking, a positive result. With the lead author, Stewart himself stating that "never again will any scientific committee say there is no risk",[53] the inclusiveness broadly aligns with studies conducted in other national jurisdictions around the time.[54] The US Federal Drug Administration, for example, similarly concludes that "there is currently insufficient scientific basis for concluding that wireless communication technologies are safe or that they pose no risk to millions of users."[55] Whilst more recent studies such as that by the WHO's International Agency for Research on Cancer have now reclassified radiofrequency electromagnetic fields from wireless communication devices as possibly carcinogenic to humans,[56] the Government's policy continues to take its cue from the Stewart Report.

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[49] IEGMP, op. cit., n. 8, p. iii, s. 1.17

[50] W. Stewart, "Mobile Phones and Health – a UK Perspective" (London: Health Protection Agency, 2003), p.1.

[51] IEGMP, op. cit., n. 8, p. iii

[52] IEGMP, op. cit., n. 8, ss. 1.4, 1.7. Non-thermal or frequency effects commonly refer to electrical effects on the fine structure of the electrically-charged cell membranes upon which all living cells depend.

[53] House HC Select Committee on Trade and Industry, op. cit., n. 16, para. 25.

[54] D. Zmirou, *et al. Mobile Telephones, Base Stations and Health: Current State-of-Knowledge and Recommendations* (Report to the Director General of Health of France, 2001); Health Council of the Netherlands, *GSM Base Stations* 2000/16E (Health Council of the Netherlands, 2000); D. Krewski, 'Potential Health Effects of Radiofrequency Fields from Wireless Telecommunication Devices' (2001) part B, 4 *J. Toxicol. Environ. Health*, 1-143; Scientific Committee on Toxicity, Ecotoxicity and the Environment (CSTEE), *Opinion on Possible Effects of Electromagnetic Fields, Radiofrequency Fields and Microwave Radiation on Human Health* (European Commission, 2001).

[55] R. Owen (Chief of the Radiation Biology Branch of the Center for Devices and Radiological Health), 'Cell Phone Facts: Consumer Information on Wireless Phones', no. 2 Commentary (US Federal Drug Administration, 8 February 2000) (www.fda.gov/cellphones accessed 5 March 2009); also cited in Anon. 'Cellular Phone Radiation and the Human Brain: a Review of the Scientific Literature', Winter (2002) *Anti-Aging Medical News* at 5 (http://www.worldhealth.net/assets/publications/AAMN_Winter02scr.pdf accessed 10 January 2012).

[56] WHO International Agency for Research on Cancer, 'IARC Classifies Radiofrequency Electromagnetic Fields as Possibly Carcinogenic to Humans', Press Release no. 208, (Lyon: IARC, 2001) (available at www.iarc.fr).

The Government's response to the Stewart Report was to propose further research jointly funded by industry and to make three broad revisions to PPG8. First, the advised adoption of a precautionary approach was limited to recommending industry to self-certify that mobile telecommunication mast emissions comply with ICNIRP (thermal) guidelines (PPG8, para.99). Second, operators are encouraged to consult local communities and LPAs prior to notification and planning application (PPG8, paras 8-13) seemingly on grounds, as Fitzpatrick explains, that public anxiety, "protests and objections" about health effects arise from not being "sufficiently well-informed."[57] Third, public concern and health considerations may constitute 'material considerations' (being those which relate to the use of the land in the public interest)[58] in determining applications for planning permission and prior approval (PPG8, para.29). However, since it remains central Government's responsibility to decide which, if any, measures are necessary to protect public health, if in its view a proposed mast meets ICNIRP guidelines then it should not be necessary for a local planning authority to consider further concerns about health aspects (PPG8, para.30). Accordingly, it is the Government's firm view that the planning system is not the place for determining health safeguards (PPG8, para.30).

Safety concerns as material planning considerations

Whilst the substance of these revisions suggests that LPAs may not need to implement their own precautionary policies, the apparent contradiction between paragraphs 29 and 30 of the PPG8 over the status of perceived and actual safety concerns has, however, left this unclear. Furthermore, the situation is compounded by the ambiguous status in domestic law of the precautionary principle itself. The principle is widely understood to mean that the absence of proof of causal link between exposure and harm shall not prevent the exercise of precaution where the suspected harm is significant or irreversible.[59] Whilst endorsed in numerous international and domestic legislative and policy documents[60] and integral to the EU Treaty (art.191(2) (ex art.174(2) EC)), the European Court of Justice and domestic courts view the precautionary principle less as a principle of law and more as a principle of policy which decision makers may choose to adopt in their law-making.[61] The European

[57] *Hansard* (Fitzpatrick), op. cit., n. 20.

[58] *R.* v *Westminster CC ex p. Monahan* [1989] 1 PLR 188; [1990] 1 QB 87.

[59] S. Bell and D. McGillivray, *Environmental Law*, 6th edn (Oxford University Press, 2006), pp. 70-2.

[60] The precautionary principle finds endorsement, for example, in the UN Framework Convention on Climate Change, art.3(3), the UK Government White Paper, *This Common Inheritance* (1990) and its Planning and Pollution Control Guidance (PPG 23); see also Bell and McGillivray, op. cit., n. 59, pp .71-3.

[61] *Pfizer* v *European Commission* [2002] ECR II-3305 (Case T-13/99); *R.* v *Secretary of State for Trade and Industry ex p. Duddridge* [1995] Env.L.R. 151. See also E. Fisher, 'Is the Precautionary Principle Justiciable?' (2001) 13(3) *J. of Environmental Law* 315.

Commission's 2000 Communication on the Precautionary Principle reinforces this limited view. It suggests that identification of unacceptable levels of risk is essentially a political decision reached by taking into account *inter alia* the latest available scientific and technical data, the proportionality of the proposed measure and the estimated costs and benefits involved in exercising precaution compared with not doing so.[62] According to this view, the suggestion is that although LPAs may not adopt a blanket precautionary policy on mobile telecommunications, an assessment of safety risks, proportionality, costs and benefits may justify refusal of mast applications on precautionary grounds. The problem is that to do so, the planning authority must both judge the technical merits of self-certification on which it is unlikely to have expertise[63] and determine the merits of precisely those economic considerations which it has been advised not to question (PPG8, para.6).

There appear two authorities, however, upon which an LPA might rely should it adopt its own precautionary approach. First, the Court of Appeal has held that local authorities may exercise precaution by taking account of genuine public concerns about suspected although unproven harms and risk of harms even when they are not wholly supported by technical evidence.[64] Second, in a Court of Appeal ruling on planning guidance, Lord Schiemann (delivering the lead speech) held that "guidance is no more than that: it is not direction, and certainly not rules" and to regard it as rules would be for a planning authority to breach its statutory duty by fettering its own discretion and by failing to exercise independent judgement.[65] The problem is, Lord Schiemann continued, a local authority would also breach this duty were it to neglect that guidance.[66]

Brent was followed in a High Court appeal against the approval of three base stations.[67] Sullivan J argued that the rules on fettering discretion affirmed in *Brent* meant that neither paragraph 29 or 30 of the PPG8 ought to be adopted as blanket policy, and consequently that self-certification cannot be used to block full and proper consideration of health effects. In that particular case, the base stations were nonetheless permitted on grounds that their perceived benefits would outweigh any actual or perceived safety risk.[68] That actual and perceived public health concerns not only *may* constitute

[62] Commission of the European Communities, *Communication from the Commission on the Precautionary Principle* COM (2000) 1; see also art.191(3) EU (ex art.174(3) EC).

[63] See, for example, N. Stanley, 'Public Concern: the Decision-Maker's Dilemma' (1998) October *J. of Planning and Environmental Law* 919.

[64] *Newport MBC* v *Secretary of State for Wales* [1988] Env. L.R 174.

[65] *R(on application of S)* v *Brent LBC* [2002] EWCA Civ 693 at [15-16].

[66] Id.

[67] *Trevett* v *Secretary of State for Transport, Local Government and the Regions* [2002] EWHC 2696.

[68] Sullivan J. in *Trevett*, op. cit., n. 67 at [23].

material considerations (*Newport*) but *must* be taken into account was affirmed in *R.* v *Stockport ex p. Smith* [2001] and *Phillips*, in which inspectors' decisions to disregard the public's safety concerns on the grounds of operators' self-certified compliance with ICNIRP guidelines were quashed.[69] Both cases underline the decisions in the earlier planning appeals of *Thurrock* and *Stanmore* over 'prior approval' – where there had been neither a 'real attempt to explore alternatives' (*Thurrock*) nor self-certification (*Stanmore*) – that perceived fears may themselves constitute amenity loss.[70] Furthermore, that health concerns not only must be taken into account but be "adequately… weight[ed]" was the nub of the High Court ruling to quash an inspector's decision in *Skelt* v *First Secretary of State and Three Bridges DC and Orange PCS Ltd* [2003] which, by a blanket policy favouring PPG8, para.30, fettered the LPA's discretion and thereby the public's right of representation and a fair hearing under HRA 1998, art.6(1).[71]

In a subsequent ruling on paragraphs 29 and 30 of the PPG8, however, the Court of Appeal found that an inspector's failure to indicate why self-certification should give insufficient reassurance about health risks meant that he departed from guidelines in paragraph 30, namely, that the planning system was not the place to determine health safeguards.[72] It was held that if international guidelines are met then planning authorities should not have to look further in relation to actual or perceived health risks unless exceptional circumstances apply or there are reasons to regard the guidelines inadequate.[73] This decision, which did not discuss *Newport*, *Brent* or *Trevett*, arguably finds correct in substance the inspector's disregard of safety concerns on grounds of self-certification in *Skelt* and *Phillips*. It does so because, according to *T-Mobile*, compliance with paragraph 30 will invariably outweigh health objections under paragraph 29 unless exceptional circumstances apply or the safeguards are shown to be inadequate.

Whilst *Skelt* and *T-Mobile* questioned the validity of the safeguards, the sole reported instance in which safeguards were reviewed remains *R.* v. *Tandridge District Council, ex p. Mohammed Al Fayed*

[69] *R.* v *Stockport ex p. Smith* [2001] CO/159; *Phillips*, op. cit., n. 31.

[70] For details, see HC Select Committee on Trade and Industry, op. cit., n. 16, para. 64.

[71] *Skelt* v *First Secretary of State and Three Bridges DC and Orange PCS Ltd* [2003] CO 2466; cited in *Hansard*, HC col.105WH (June 28, 2004; Andrew Mitchell MP, 'Mobile phones').

[72] *T-Mobile UK Ltd, Hutchinson 3G Ltd and Orange PCS Ltd* v *The First Secretary of State and Harrogate BC* [2004] EWCA Civ 1763.

[73] See also S. Hannet, 'Significant United Kingdom Environmental Cases January-December 2004' (2005) 17(2) *J. of Planning and Environmental Law* 285, p .291.

[1999].[74] Al-Fayed questioned the adequacy of national and ICNIRP guidelines given that both discount the non-thermal effects of radiofrequency radiation. Relying *inter alia* on World Health Organisation findings that the "effects of [non-thermal] exposure… are not established or even well understood, so that definitive statements about health risks cannot be made",[75] counsel for Al-Fayed advocated that a precautionary approach ought to be taken until doubts are dispelled. Carnwarth J referred to NRPB literature that claimed (at the time) that non-thermal effects are not an acceptable scientific basis upon which to restrict exposure and that compliance with recommended (thermal) guidelines "will [sic] prevent any adverse effect on human health due to exposure to electromagnetic fields."[76] The judge argued that although planning authorities are not bound by such statutory expert opinion,[77] operators "can reasonably expect planning decisions to be guided by a consistent and scientifically informed national policy approach [and] … according to the science presented here," the exercise of precaution would mean that industry "would grind to a halt".[78] Consequently, no reasonable LPA should refuse permission.[79] The decision was upheld on appeal.[80]

Read together, the case law suggests that actual and perceived safety concerns including the effect of such on amenity loss may be material considerations in determining planning applications (*Trevett*; *Skelt*; *Newport*; *Stanmore*), particularly where alternative mast sites are available (*Philips; Thurrock*).[81] However, the equation in *T-Mobile* of precaution with self-certification means that little weight will be given to objections on safety concerns, unless exceptional circumstances suggest otherwise or there are reasons to regard this safeguard as inadequate. Although not bound by expert views, LPAs are unlikely to weight challenges to safeguards as much as statutory experts (*Al-Fayed*)[82] unless sufficient evidence suggests otherwise. Indeed, because failure to adhere to statutory opinions on safety risks

[74] *R.* v. *Tandridge District Council, ex p. Mohammed Al Fayed* [1999] *J. of Planning and Environmental Law* 825; CA (Civ Div) EHLR 257.

[75] Carnwath J in *Al Fayed*, op cit., n. 41, p. 834.

[76] Id.

[77] *Lavender* v *Minister of Housing and Local Government* [1971] WLR 1231.

[78] Carnwath J in *Al Fayed*, op cit., n. 41, pp.830 and 834 respectively.

[79] Carnwath J in *Al Fayed*, op cit., n. 41, p.830.

[80] *Al Fayed*, op. cit., n. 74.

[81] HC Select Committee on Trade and Industry, op. cit., n. 16, paras 63-4. See also *Hansard* (Mitchell), op. cit., n. 71, HC col.111WH.

[82] Carnwath J in *Al Fayed*, op cit., n. 41, p.830.

being upset on appeal and would render vulnerable an authority to an order to pay costs,[83] LPAs appear in substance so bound, since a refusal is unlikely to be justified.[84]

Comment

A balance has been struck between health concerns and mobile telecommunication growth. The Government's recognisably neo-liberal presumption of economic growth and consumer choice[85] is lightly tempered by self-certification to exposure thresholds recommended by selected scientific bodies. The Court of Appeal's decision in *T-Mobile* to equate precaution with self-certification marginalises in mobile telecommunications planning law its ruling in *Newport* that precautionary approaches may be legitimately founded on public objections. The decision also militates against its ruling in *Brent* that guidelines cannot lawfully be taken as rules. It is difficult not to read the combined effect of *T-Mobile* and *Al-Fayed* as a *de facto* blanket policy that fetters authorities' discretion with regard to PPG8, para.30, and renders largely unjustified any substantial weighting of objections under paragraph 29. Furthermore, challenges to the certification policy will have to overcome a similar 'fettering' of authorities' discretion regarding the weighting given to statutory expertise (*Al-Fayed*), and justify greater precaution in terms of the costs to the economy (*Al-Fayed*) and of benefits foregone (*Trevett*). On this reading, the balance struck between precaution and growth is one in which public objections to growth on precautionary grounds are severely restricted. Before some of the implications of this balance and its apparent necessity are considered, it is useful to raise briefly several reservations about *T-Mobile*.

Problems with T-Mobile?

In their construction of PPG8 in *T-Mobile*, the Lords find that "clear guidance is given".[86] Paragraph 29 is merely background for "the policy" expressed in paragraph 30

[83] *Manchester City Council* v *Secretary of State for the Environment* [1988] *J. of Planning and Environmental Law* 774; *Al Fayed*, op. cit., n. 74.

[84] See Pill LJ in *T-Mobile*, op. cit., n. 72 at [30]; see also Carnwath J in *Al Fayed*, op cit., n. 41, p. 830.

[85] E.g., Walls, op. cit. n. 16, p. 654.

[86] Pill LJ in *T-Mobile*, op. cit., n. 72 at [27].

> that if in any given case the ICNIRP guidelines are met the planning authority should not have to look further in relation either to an actual health risk or perceived health risk.[87]

Accordingly, when self-certification is provided, precautionary requirements are deemed to have been met (unless exceptional circumstances apply). This is because, in response to the Stewart Report's recommendation for precaution, the revised paragraph 30 is grounded in what the Government refers to as a precautionary approach. Consequently, the plausibility of finding paragraph 30 to be 'the policy', and paragraph 29 to be background, rests firmly on the notion that the Stewart's Report's recommendations for precaution have been adequately incorporated. Among problems with this notion (and assuming that by failing to discuss *Newport* (CA), *Brent* (CA) or *Trevett* (HC), *T-Mobile* is not vulnerable to accusations of having been decided *per incuriam*), two stand out. The first concerns the question of when exceptional circumstances apply; the second concerns *T-Mobile*'s view of precaution itself.

The *first* problem with *T-Mobile*, concerning exceptional circumstances, follows from its silencing of all public health concerns except in exceptional circumstances. Although previous case-law may apply in these circumstances (namely, that perceived and actual public health concerns not only *may* constitute material considerations (*Newport*) but *must* be taken into account (*Phillips, Smith*) and be adequately weighed (*Skelt*)), *T-Mobile* is itself is silent as to when exceptional circumstances in fact apply. *T-Mobile* holds, it is remembered, that if paragraph 30 (self-certification) applies then there is no need to consider paragraph 29 unless exceptional circumstances apply. However, it remains unclear how the courts are to know whether or not exceptional circumstances apply unless they consider perceived and actual health concerns, that is, unless and until they fully consider paragraph 29. The conundrum finds expression in Lord Laws' view that, in the course of reaching his judgement, he could "see no exceptional circumstances".[88] Since the learned judge had in fact neither inquired into, nor permitted circumstances under paragraph 29 to be heard (let alone be weighted; *Skelt*), it appears disingenuous at best to claim to be unable to see what he has not sought to see, and indeed, precisely what he has forbidden from being seen.

The *second* problem concerns *T-Mobile*'s equation of precaution with (self-certified) compliance with ICNIRP guidelines. Any coherent understanding of precaution, it was observed, must acknowledge that the scientific 'state of the art' is subject to review on grounds that what currently constitutes an accepted corpus of scientific knowledge may be incomplete, based on mistaken assumptions or

[87] Laws LJ in *T-Mobile*, op. cit., n. 72 at [18].

[88] Laws LJ in *T-Mobile*, op. cit., n. 72 at [21].

subject to other errors. Consequently, caution ought particularly to be exercised where 'the science' itself is acknowledged by experts to be inconclusive and concerns potentially significant and/or irreversible deleterious effects. Further, the need for precaution is heightened when unknown risks may be created by novel technologies as a feature of their very novelty; uncertainty escalates because risk assessments are predicated upon known, calculable facts, yet such evidence is not available in the case of novel technologies.[89] Such an understanding of the need for precaution is implied within the Stewart Report's conclusion that a precautionary approach should be adopted "until more robust scientific information becomes available", that is, before 'the science' about human health effects can move beyond an inconclusive state.

The essence of *T-Mobile* is that because paragraph 30 is itself thought to comprise a precautionary approach no further precaution may be exercised, as in *Newport*, by taking account of genuine public concerns about suspected harms and risk of harms. *T-Mobile* may be taken to deviate from the precautionary principle for two reasons. First, the claim of no proof of harm such as that, for example,

[89] Typically, risk analysis subsumes risks known from past experience into epistemic categories that can be arranged in declining order of certainty (B. Fischoff *et al.*, 'Acceptable Risk' in Revesz, op. cit., n. 5, 80-4). Alongside known risks, there may be unknown ones, typically depicted as dependent on facts about the world which have yet to be discovered (id.). However, often overlooked are unknown risks that are created by novel technologies as a feature of their very novelty, particularly as a result of unforeseen interactions between different technologies (I. Hacking, 'Culpable Ignorance of Interference Effects' in *Values at Risk*, ed. D. MacLean (Rowman and Allanheld, 1986) 136-154). This phenomenon has become of interest in recent years as a result of retrospective analyses of the unforeseen risks of industrial chemical technologies (J. Koppe and J. Keys, 'PCBs and the Precautionary Principle' in *Late Lessons from Early Warnings: the Precautionary Principle 1896-2000*, ed. P. Harramoës *et al.*, vol.22 (European Environment Agency, 2001) 64-75), and in relation to new fields such as genetic engineering and nanotechnology (K. Wetter, *100 years after The Pure Food and Drug Act* (ETC Group, 2006)). These risks, it has been argued, are associated with the introduction of new technologies into complex social and ecological systems in which unpredictable and uncontainable transformations of the surrounding environment may occur, producing unintended consequences that can remain latent for many years (B. Adam and C. Groves, *Future Matters: Action, Knowledge, Ethics* (Brill, 2007) 114; B. Adam, *Timescapes of Modernity: the Environment and Invisible Hazards* (Routledge, 1998) 165-166; J. Gofman and A. Tamplin, *Poisoned Power* (Rodale Press, 1979) 95-6). The result is often one in which the capacity of a technology to produce harm cannot be judged before its widespread use, thus extending the boundaries of the laboratory to encompass the outside world (Gofman and Tamplin, *op cit.*, ch.11). If, on this reading, mobile telecommunication technology present potential hazards, not unknown in the sense of being dependent on hitherto undiscovered facts, but rather presents risks as novel as the technology itself, then it is unclear how such standard precautionary criteria, which require identification of the terms it is to quantify, can be meaningfully applied. On the moral issues implied by these features of novel technologies, see e.g. C. Groves 'Future Ethics: Risk, Care and Non-Reciprocal Responsibility' (2009) 5(1) *Journal of Global Ethics* 17; J. Schummer, 'Ethics of Chemical Synthesis' (2001) 7(2) *Hyle* 103.

by Laws LJ that compliance with paragraph 30 eliminates any "actual health risk"[90] is difficult to square with Stewart's own view that self-certified compliance does not preclude the possibility that "exposure to radiofrequency radiation, even at levels below national guidelines is… without potential adverse health effects."[91] This point is underscored by recommendations from the European Parliament, the Council of Europe, the European Environment Agency and numerous medical bodies to reduce exposure to EMFs until "independent[t] and credib[le]… scientific expertise" can establish the facts of the matter.[92] Indeed, the claim of no proof of harm is, critics point out, often reached upon the basis of research that is weakened by questionable research design and/or by disregarding material counter-evidence including that from industry's own studies,[93] complicated by conflicts of interest[94] and difficult to separate from 'disinformation' about, and the reported suppression of,

[90] Laws LJ in *T-Mobile*, op. cit., n. 72 at [13] and [18]; see also Carnwath J in *Al Fayed*, op cit., n. 41, p.830. See also more recently, Swerdlow, A. *et al.* 'Mobile Phones, Brain Tumours and the Interphone Study: Where are we now?' (2011) 119(11) *Environmental Health Perspectives* 1534.

[91] Stewart, op. cit., n. 50, p.1.

[92] Council of Europe Resolution 1815 (2011) on the potential dangers of electromagnetic fields and their effect on the environment, s. 7. "Greatly concerned" that "insurance companies are tending to exclude coverage for the risk associated with EMFs [from] liability insurance", the European Parliament voted (by 559 to 22) in a Resolution on health concerns associated with electromagnetic fields (2 April 2009) for changes to law and policy including a "review … the scientific basis and adequacy of the EMF [exposure] limits" and to "negate or reduce the pulsating and amplitude modulation" used in transmission. Similarly, following an international scientific review which concluded that safety limits set for the radiation are "thousands of times too lenient", the EEA called for immediate reduction of exposure to mobile phone masts (G. Lean, 'EU Watchdog calls for immediate action on Wi-Fi Radiation' (16 September 2007) *The Independent*). Declarations, Resolutions and Appeals from the 1998 Vienna Resolution to the 2010 International Appeal of Würzburg by European, US and international medical associations calling for a moratorium on wireless technology and/or restrictions on its use may be found at http://international-emf-alliance.org/index.php/appeals (accessed 1 June 2012).

[93] For criticism of research design and scoping (including the omission of industry's own counter evidence), see, for example, D. Cressey, 'No link found between Mobile Phones and Cancer' (17 May 2010) *Nature* (doi:10.1038/news.2010.246); L. Morgan *et al.*, 2009. *Cellphones and Brain Tumours – 15 Reasons for Concern: Science, Spin and the Truth behind Interphone* (http://www.bioinitiative.org/ accessed 10 June 2012); L. Hardell, M. Carlberg and K. Hansson Mild, 'Methodological Aspects of Epidemiological Studies on the Use of Mobile Phones and their Association with Brain Tumors' (2008) 2 *Open Environmental Sciences* 54; L. Hardell and K. Hansson Mild, 'Mobile Phone Use and Risk of Acoustic Neuroma: Results of the Interphone Case–control study in five North European Countries' (2006) 94 *British Journal of Cancer* 1348; (see also the ECOLOG-Institut http://www.ecolog-institut.de/index.php?id=74&no_cache=1&sword_list[]=mobile&sword_list[]=phone (accessed 1 June 2012).

[94] See, for example, D. Maish, op. cit., n. 47; L. Hardell *et al.* "Secret Ties to Industry and Conflicting Interests in Cancer Research" (2006) 50(3) *American Journal of Industrial Medicine* 227 (see also L. Slesin 'WHO welcomes Electric Utility Industry to Key EMF Meeting, Bars the Press" (22 September 2005) *Microwaves News* and http://www.whale.to/vaccine/walker..html accessed 1 June 2012). For example, lead author of a recent commentary that gives the ICNIRP's opinion on the Interphone Study (Swerdlow, op. cit., n. 90), Swerdlow declares "shares in the telecom companies Cable and Wireless Worldwide and Cable and Wireless

research that yields counter evidence.[95] Moreover, the claim risks confusing evidence with proof.[96] Whilst a causal link may yet to be proven between EMF exposure and, say, cancer, neither it seems has an irrefutable causal link been proven between, say, smoking and lung cancer.[97] At most, there appear to be strong evidential correlates, but such correlation has not prevented the European Court of Justice, for instance, from upholding the European Commission's precautionary approach to smoking by prescribing warning labels and public exclusion zones.[98]

Second, *T-Mobile* embodies a peculiar contradiction. Not only does its version of the precautionary principle bear little resemblance to the precautionary approach that is endorsed in domestic and EC

Communications" including his wife's "shares in the BT group, a global telecommunications services company". See generally, T. Caulfield, 'Profit and the Production of Knowledge: the Impact of Industry on Representations of Research Results' (2007) 8(1) *Harvard Health Policy Review* 51; S. Bohme, L. Zorabedian and D. Egilman, 'Maximizing Profit and Endangering Health: Corporate Strategies to Avoid Litigation and Regulation' (2005) 11(4) *International Journal of Occupational Environmental Health* 338; and also http://www.powerwatch.org.uk/science/bias.asp and http://www.emfacts.com/papers/.

On similar conflicts of interest in research and regulation, for instance, from food and nutrition to environmental protection, see, for example, C. Collins, *Toxic Loopholes: Failures and Future Prospects of Environmental Law* (Cambridge University Press, 2010); L. Sklair, 'The Transnational Capitalist Class and Global Politics: Deconstructing the Corporate-State Connection' (2002) 23(2) *International Political Science Review* 159; K. Bruno and J. Karliner, *Earthsummit.biz* (Food First Books, 2002); M. Mansour and J. Bennett, 'Codex Alimentarius, Biotechnology and Technical Barriers to Trade' (2000) 3(4) *Agbioforum* 1.

[95] On a range of disinformation and reported silencing tactics (said to include threats of withdrawing funding, inhibiting career progression, gagging, closing down laboratories and dismissal) – activities which are surprising if the claim of 'no evidence of harm' is true – see for example, above and D. Davis, *Disconnect: The Truth about Cell Phone Radiation, What the Industry has Done to Hide It, and How to Protect Your Family* (Penguin, 2010); D. Maish and O. Johansson, 'Silencing Inconvenient Research in Sweden: the Death of the No-risk and Healthy Office Projects' (2010) 29(2) *Journal of the Australasian College of Nutritional and Environmental Medicine* 1. On similar tactics on research into smoking, asbestos, therapeutic X-ray, DDT and GM food, see, for example, D. Michaels, *Doubt is their Product: How Industry's Assault on Science threatens your Health* (Oxford University Press, 2008); C. Brown, 'Suppressed Report shows Cancer Link to GM Potatoes' (17 February 2007) *The Independent*; D. Egilman, 'Suppression Bias at the *Journal of Occupational and Environmental Medicine*' (2005) 11(2) *International Journal of Occupational and Environmental Health* 202; B. Martin, 'Suppressing Research Data: Methods, Context, Accountability and Responses' (1999) 6(4) *Accountability in Research* 333; D. Hess, 1999. 'Suppression, Bias and Selection in Science: the Case of Cancer Research' 6(4) *Accountability in Research* 245.

[96] See also Sullivan J in *St Leger Davy*, op. cit., n. 32 at [6] and [23]; HC Select Committee on Trade and Industry, op. cit., n. 16, para. 12; Carnwath J in *Al Fayed*, op cit., n. 41, p.827.

[97] See, for example, D. Phillips *et al.*, 'Correlation of DNA Adduct Levels in Human Lung with Cigarette Smoking' (1988) 336 *Nature* 790; see also J. Pearl, "Causal Diagrams for Experimental Research" (1995) 82(4) *Biometrika* 669. For early accounts, see, for example, R. Doll, and A.B. Hill, 'Smoking and Carcinoma of the Lung' (1950) *British Medical Journal* 739; E. Wynder, 'Tobacco Smoking as a Possible Etiologic Factor in Bronchogenic Carcinoma' (1950) 143 *JAMA* 329.

[98] *R.* v *Secretary of State for Health ex p. British American Tobacco Ltd* [2002] ECR I-11453 (Case 491/01).

law[99] – a contention raised in Parliament,[100] but the rejection of possible health risks also betrays a view of the science as conclusive. It is submitted that if the science were conclusive then there would be no need for precaution, and indeed, no need for PPG8, para.29 at all. The presence of paragraph 29, however, suggests that the Government's stated aim to balance the twin objectives of precaution and growth has been translated, in this judgement, into a privileging of the latter at the expense of the former. The published guidance contains a tension between the two objectives (as in, for instance, *Brent*, *Trevett* and *Newport*). *T-Mobile* erases this tension, thus also undermining the policy goal of *balancing* contending objectives.

It does not necessarily follow from these reservations that compliance with PPG8, para.30 would be without merit. It does follow from them, however, that *T-Mobile* appears vulnerable both to circumstances in which exceptions may apply and to balancing precaution and public concern (PPG8, para.29) with economic growth (PPG8, paras 6, 30) because it simply collapses the former into the latter. Moreover, the privileging of growth at the expense of precaution serves as grounds for silencing public planning objections whenever operators self-certify compliance points to deeper-lying changes in the relations between the individual and the state. Even if it valid to think that compliance with paragraph 30 would eliminate, as Laws LJ maintains, any "actual health risk",[101] and therefore valid to treat represented science as conclusive and in effect beyond review, it does not follow that there is a need to silence the public's views on the matter. The idea that such popular democratic expression should be regarded, as Laws LJ continues, as 'mere background' to be disregarded if the technical criteria of paragraph 30 are met, and that this should be an "end to the matter",[102] points to certain quasi-constitutional changes. These changes, which are discussed below, centre on imposition of non-negligible risk of harm for private gain and the effective removal of victims scope to resist this imposition.

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[99] E.g., *Pfizer*, op. cit., n. 61; *Duddridge*, op. cit., n. 61; Commission of the European Communities, op. cit., n. 62; Bell and McGillivray, op. cit., n. 59, p. 70. See also J. Peel, 'When (Scientific Rationality Rules: (Mis)Application of the Precautionary Principle in Australian Mobile Phone Tower Cases' (2006) 19(1) *J. of Planning and Environmental Law* 103.

[100] *Hansard*, HC col.109WH (June 28, 2004; Mr Drew MP, 'Mobile phones'); *Hansard*, HC col.116-7WH (June 28, 2004; Dr Stoate MP, 28 June 2004 'Mobile phones'); *Hansard*, HC cols 1315-6W (February 8, 2006; Mrs Miller MP). Similarly, the Standards Australia TE/7 Committee (charged with setting an EMF exposure standard) did not consider that ICNIRP recommendations amounted to a precautionary approach (S. Pennicuik, *RF Radiation Exposure and Health Limits: Reasons for Opposing the Proposed 1999 Draft* (1999) (AS/NZS 2772).

[101] Laws LJ in *T-Mobile*, op. cit., n. 72 at [13] and [18].

[102] Laws LJ. in *T-Mobile*, op. cit., n. 72 at [10], [13] and [18].

Central to these quasi-constitutional changes, it is submitted, is the technocratic framing of the permitted private use of key public resources. Such framing serves to define the nature of the risks involved, presumes the public's consent to the imposition of as yet unknown risk and gives grounds for restricting if not removing their ability to withdraw consent by, say, challenging this presumption. Accordingly, we will now set out what is involved in this technical framing of risk in order to better understand the constitutional implications of the primacy accorded to growth in the *T-Mobile* judgement.

Technical framing and contestations of risk

Judicial affirmation in, say, *Nunn*, *Trevett* and *Al-Fayed* of the Ministerial decision to frame the mobile telecommunications debate in terms of balancing growth against technically-sanctioned risks gives the debate a sense of precision and calculability. However, it also limits the scope for cogent discussion including the voicing of public concern about health effects.[103] It has long been argued that framing debates on risk solely in the technical-utilitarian terms of quantifiable risks, costs and benefits tends to reduce deliberation to questions of *means*.[104] For example, debate may focus on which option presents most benefits and least risk. In these cases, technocratic framing militates against the consideration of political and moral questions of *ends*. Questions, for instance, about whether or not people want a communication system that requires mast erection across town and countryside and imposes yet-to-be-determined health risks cannot be entertained because such concerns cannot be articulated in quantifiable terms.

At the same time, it perhaps goes without saying that open, cogent public discussion is, as Ewing points out, the "lifeblood of democracy."[105] Central to such liberties as freedom of expression and right to a fair, impartial hearing (HRA 1998, arts 10(1) and 6(1)), open public deliberation acts, Lord Steyn adds, as both

[103] B. Wynne, *Rationality and Ritual: The Windscale inquiry and Nuclear Decision in Britain* (British Society for the History of Science, 1982); J. Abraham and J. Sheppard, J., 'Democracy, Technocracy and the Secret State of Medicines Control: Expert and Non-Expert Perspectives' (1997) 22(2) *Science, Technology and Human Values* 139.

[104] See, for example, P. Anderson, 'Which Rights are Eclipsed When Risk is Defined by Corporatism: Governance and GM Food' (2004) 21(6) *Theory, Culture & Society* 155; J. O'Neill, *Ecology, Policy and Politics: Human Well-Being and the Natural World* (Routledge, 1993) 68-80; T. McCarthy, *The Critical Theory of Juergen Habermas* (Polity, 1984) 39-40.

[105] Ewing, op. cit., n. 4, p. 432.

> safety valve: people are more ready to accept decisions that go against them if they can in principle seek to influence them… [and] brake on the abuse of power by public officials.[106]

Whilst the decision in *Newport* gives scope to political and moral considerability other than that provided by a technical-utilitarian framework, the decision to foreclose this in *T-Mobile* affirms a tendency, characteristic of this framework, to define politico-moral concerns purely as economic and technical matters whose solution is best left to experts.[107]

Similar restrictions on public participation may be observed in official representations of other controversial technologies ranging from nuclear power to GM food. Like mobile telecommunication, these technologies were represented as serving some national interest, with evidence for this assertion given in the idiom of benefits, costs and risks.[108] As a result, political, ethical and social concerns about public harm from permitted private governance of energy and food production were marginalised. Furthermore, the conflation of 'national interest' with the socialisation of risk and privatisation of gain from the permitted use of these resources means that opposition to such governance could more easily be defined as mere local preference (NIMBYism). The effect is to close down the kind of scope that was offered in *Newport* for meaningful public deliberation. This is to say that it is no longer possible for the public to meaningfully reflect on substantive issues – including the ethical and political legitimacy of decisions (e.g., in energy, food production and mobile telecommunications), what kind of society participants wish to inhabit, questions of 'national interest and other matters including how power inequalities are embedded within the planning system itself and the social institutions which support it.[109]

The tendency of technical framing to close down cogent discussion is also evident in the requirement placed on operators to consult the affected public. By consultation is generally meant the provision of select scientific information. Such consultation makes it apparent that widespread public anxiety over

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[106] Steyn, L. in *R.* v *Secretary of State for the Home Department, ex p. Simms and another* [1999] 3 All ER 400 at [408].

[107] See, for example, M. Feintuck, 'Precautionary Maybe, but What's the Principle? The Precautionary Principle, the Regulation of Risk and the Public Domain' (2005) 32(3) *J. of Law and Society* 371, at 392-5; O'Neill, op. cit., n. 104, pp.68-80; McCarthy, op. cit., n. 104, pp.39-40.

[108] On nuclear power, see, for example, A. Gorz, *Ecology as Politics* (South End Press, 1980) 99-113 and D. Elliot, *The Politics of Nuclear Power* (Pluto, 1978) 78-102. On GM food, see, for example Anderson, op. cit., n. 104.

[109] R. Cowell and S. Owens, *Land and Limits: Interpreting Sustainability in the Planning Process* 2nd ed. (Routledge, 2011); E. Rough, 'Policy Learning through Public Inquiries? The case of UK Nuclear Energy Policy 1955 – 1961' (2011) 29(1) *Environment and Planning C: Government and Policy* 24; R. Cowell and S. Owens, 'Governing Space: Planning Reform and the Politics of Sustainability' (2006) 24 *Environment and Planning C: Government and Policy* 403.

technologies[110] is regarded by industry, Government and some commentators alike to derive largely from the perception that public is 'insufficiently informed',[111] an assumption reminiscent of proponents' dismissal of objections to the expansion of nuclear power in the 1970s and to the introduction of GM food.[112] This position may be criticised for erroneously assuming that popular democratic objection is symptomatic of scientific illiteracy[113] and that 'the science' itself is uncontested[114] – assumptions which are surprising in light of earlier findings by the House of Commons Science and Technology Select Committee that "the public is well able to understand uncertainties, if they are clearly presented."[115]

It is nonetheless apparent, if unspoken, that opening decision-making to genuine public deliberation can only make more difficult, or at least, more costly the relevant solution of technical problems and therefore less profitable the efficient creation of an income-stream for operators.[116] In the circumstances, technical framing implies a distinct surrender of civil liberty.[117] The amount surrendered is (presented as) determined by technical discourses (science, neoclassical economics) that, *T-Mobile* effectively mandates, may not be readily challenged on non-technical grounds. It is partly for this reason that the exclusion of a public airing of health concerns in mobile telecommunications has, because it restricts freedom of expression, been regarded repeatedly in

[110] Askew, op. cit., n. 10, p. 929.

[111] For example, *Hansard* (Fitzpatrick), op. cit., n. 20; Askew, op. cit., n. 10, p. 929. For a critical overview, see Walls, op. cit. n. 16.

[112] Echoing the dismissal of opposition to the expansion of nuclear power in Britain in the 1970s as being, for instance, 'unenlightened' or 'hysteria' (Gorz, op. cit., n. 108, pp. 99-113; Elliot, op. cit., n. 108, pp. 78-102), objections to GM food that were outwith the quantified terms of risks, costs and benefits – such as that uncertain and wholly unnecessary risks ought not to be imposed upon society in perpetuity merely for the perceived gain of a handful of private corporations – were widely dismissed by proponents as being 'ignorant of the facts' or else 'blinkered', 'emotional' or a 'phobia' (Anderson, op. cit., n. 104, pp. 156-7).

[113] Comparison may be warranted with some Government and industry responses to public objection to nuclear power (B. Wynne, op. cit., n. 103), 'new' medicine (Abraham and Sheppard, op. cit., n. 103) and GM food (Anderson, op. cit., n. 104).

[114] See, for example, PPG8.

[115] HC Select Committee on Trade and Industry, op. cit., n. 16, para. 29. See also D. Westell, *Will Radiation Regulation Matter in the 21st Century?* 26th Annual Conference of the Australasian Radiation Protection Society, 17-20 September 2001.

[116] McCarthy, op. cit., n. 104, p. 39.

[117] As discussed below, liberties surrendered or curtailed include the right to physical integrity and more generally, the liberty to determine which, if any, harms should be imposed, on whom, in which circumstances, and on what grounds.

Parliament as preventing the possibility of a fair and impartial hearing (HRA 1998, art.6(1)).[118] In addition to the risk that, as Sullivan J argues elsewhere, by restricting public deliberation, policy

> may turn out to have taken into account incorrect or irrelevant matters which, had there been an opportunity to comment, could have been corrected,[119]

the restriction has constitutional implications. Among them is the fact that restrictions on the freedom of expression are justified only where 'necessary' in a 'democratic society' (HRA 1998, art.10(2)). Restrictions of this freedom whether express (*T-Mobile)* or tacit (technical framing) imply, as Ewing points out, a "theory of democracy by which to determine whether a restriction on a Convention right can be justified".[120] If according to any theory of democratic society the consent of the governed is fundamental, and if the alleged purpose of the restriction is, as made plain in *Flora Davies*, to enable the operators' right to economic liberty, then it is unclear how legitimate are restrictions – for the clear benefit of one sector of that society – upon the proper arenas within which the consent of the rest can be meaningfully expressed or indeed withdrawn.[121]

Balancing public health and private wealth: rebalancing relations between individual and state?

Underlying the broad policy to permit the mobile telecommunications operators free rein within a 'light touch' regulatory framework appears a perception that the only, or at least most privately profitable, way a 'modern telecommunications network' can be secured is if the Government (a) delegates power to the private sector and (b) provides them with an attractive investment climate. Securing such a climate has been achieved, we have observed, through restrictions placed upon certain public protections (e.g., *qua* permitted development rights), curtailment of rights of representation (e.g., regarding safety) and eclipsing dissent by representing policy aims in technical-utilitarian terms.[122] The framings through which growth and precaution are 'balanced' in practice by policy-makers and the judiciary thus appear to be underscored by a deeper tension: between the

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[118] See, for example, *Hansard*, HC cols 116-8WH (June 28, 2004; Mr Turner MP, 'Mobile phones').

[119] *R (on application of Greenpeace Ltd)* v *Secretary of State for Trade and Industry* [2007] EWHC 311 at [57]. See also P. Harramoës *et al.* 'Twelve Late Lessons' in P. Harramoës *et al.*, op. cit., n. 89, pp. 168-91.

[120] Ewing, op. cit., n. 4, p. 433.

[121] Sullivan J in *Flora Davies*, op. cit., n. 35 at [32]. On the difficulty concerning consent within the context of a nation-state subject to global economic liberalisation and related pressures, see below, and D. Held, 'Democracy, the Nation-State and the Global System' in *Political Theory Today*, ed. D. Held (Polity, 1991) 197-235.

[122] E.g., P. Anderson, *Political Thought for Turbulent Times: Reforming Law and Economy for a Sustainable Earth* (Routledge; forthcoming), ch.5; S. Gill, "New Constitutionalism, Democratisation and Global Political Economy" in *The Global Governance Reader*, ed. R. Wilkinson (Routledge, 2005) 174-86.

provision of perceived benefit by the private governance of a key resource (i.e., parts of the radio spectrum) and democratic control of this same resource. The kind of social contract between individuals and the state that is affirmed by this tension rests on the surrender by the individual of a portion of her liberty to acquire benefits which it is the state's job to determine and to facilitate. Where key resources are subject to privatised control and management, the amount of individual liberty surrendered appears directly proportionate to that required by private actors to meet contractual obligations, recuperate their investments and remain economically competitive.

It follows that if the primary purpose of the state is to provide individuals with conditions in which they may pursue quantifiable material benefit then the state may assume exclusive power to define what constitutes benefit – a point underscored by an assumption that underpins a requirement in mobile network operators' licence to in effect irradiate upwards of 95% of the population, namely, that this population in fact wants to use operators' (expanding) services.[123] It also follows that the state may assume the power (initially by the executive and subsequently by the judiciary in *T-Mobile*) to redefine and perhaps curtail such civil liberties as the right of representation, which are rebalanced in proportion to the liberty required by operators to cost-effectively impose such benefits on the UK population. In a framework in which the state determines which liberties to grant to which individuals, political liberty is effectively possessed by the state. Here, the source of sovereignty resides in the state, much as it did for Hobbes, rather than in the individual.[124] A markedly neo-liberal emphasis on material benefits produced by private governance of key public resources gives this framework a distinctive utilitarian tenor.

This kind of social contract affirms a theory of state, but it is arguable whether it is a democratic one. Elementary to a nominally democratic social contract such as those expressed by the likes of J.S. Mill, Kant or Rousseau is the view, for instance, that no government has the power to compel people to be exposed to non-negligible (we might add, unknown but potentially significant) risks of harm for the purpose of the financial gain of others.[125] Also elementary is the view that the protection of citizens'

[123] On contractual coverage requirements, see, for example, above and Ofcom, op. cit., n. 17.

[124] T. Hobbes, *Leviathan* (Blackwell, 1957).

[125] J. Michaelson, 'Rethinking Regulatory Reform: Toxics, Politics and Ethics' (1996) 105(7) *Yale Law Journal* 1891, p. 1920. The right to physical integrity (HRA art. 8) includes the right to be free from avoidable harms and non-negligible risks of harms. The absence of 'credible and independent' evidence concerning the safety of irradiating the public makes the rollout of wireless technology essentially a social experiment (Johansson, op. cit., n. 15). Understood as such, it is difficult to square with the right not to be experimented upon without full and informed consent (see *Trials of War Criminals before the Nuremberg Military Tribunals under Control Council*

liberty, particularly political liberty, is the supreme good.[126] In this contract, the sovereign citizen does not surrender sovereignty, but only specific powers and functions to the state. Because political sovereignty is not transferred to the state, both civil rights and political liberties remain inalienable – above all the right to deliberate and to determine laws. When a state determines material benefits for individuals and determines that they are to be provided by (a) delegation of authority to private contractors in the pursuit of their own interests and (b) by restriction of requisite public civil liberties to this end, the prospects of a meaningful democratic social contract appear decidedly attenuated.

Law No. 10, Vol. 2, pp. 181–182 (U.S. Government Printing Office, 1949); see also the Helsinki Declaration on Ethical Principals for Medical Research involving Human Subjects 1964).

[126] J.S. Mill, 'On Liberty' in *Utilitarianism*, ed. M. Warnock (Fontana, 1962); J-J. Rousseau, *The Social Contract* (Penguin, 1968); I. Kant, *Political Writings*, tr. H. Reiss (Cambridge University Press, 1977). Seminal among early judicial affirmations that the constitution exists in order to protect individual liberty and security, and that this represents a limitation of the state remains that of *Entick* v *Carrington* [1765] EWHC KB J98.

A necessary 'balance'?

The 'balance' struck between economic growth and precaution significantly restricts objections to certain forms of private gain based on precaution. As a result, it significantly redefines certain relations between the state and individual. To the extent that the aforementioned elements of mobile telecommunication liberalisation may be recognised in the liberalisation of other public utilities, services and resources (e.g., energy, food production, water and public health),[127] the question as to what is apparently *necessary* about the balance is relevant to areas beyond that of mobile telecommunications. A useful lead in answering this question may lie, according to various lines of inquiry, in the growing multinational corporate capacity in an age of global economic liberalisation to withhold inward investment from individual national jurisdictions.[128] The granting of ever-wider latitude of development authority to large corporations and the resulting re-drawing of the boundaries of right and obligation is, as social theorist, Ulrich Beck argues, fundamentally a result of governments' fear of the prospect of a sudden withering of investment and the resultant loss of legitimacy as economic growth and levels of employment decline.[129] On this reading, multinational corporate investment policy resembles a *force majeure* deployed in order to intimidate political authorities and drive political change.[130]

Whilst the implications of global economic liberalisation for the political sovereignty of the nation-state – which includes seemingly basing state policy in various areas upon the dominance of the investor and the protection of his or her property rights in part by insulating them from democratic

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[127] See, for example, C. Groves, M. Munday and N. Yakovleva, 'Fighting the Pipe: Neo-liberal Governance and Barriers to Effective Community Participation in Energy Infrastructure Planning' (forthcoming) *Environment and Planning C: Government and Policy*; A. Pollock *et al.* 2012. 'How the Health and Social Care Bill 2011 would end Entitlement to Comprehensive Health Care in England' 379(9814) *The Lancet* 387; D. Hall and E. Lobina, 'Private and Public Interests in Water and Energy' (2004) 28(4) *Natural Resources Forum* 268; C. Defeuilley, 1999, 'Competition and Public Service Obligations: Regulatory Rules and Industries Games' (1999) 70(1) *Annals of Public and Cooperative Economics* 25.

[128] See, for example, Anderson, op. cit., n. 122, ch.5; Lee and Stokes, op. cit., n. 1, pp. 2-4; Gill, op. cit., n. 122, pp. 174-6; U. Beck, *Power in the Global Age: a New Global Political Economy* (Polity, 2005) ch.4; J. Bakan, *The Corporation: The Pathological Pursuit of Profit and Power* (Constable, 2004) 25; M. Hardt and A. Negri, *Empire* (Harvard University Press, 2000) 31-2; C. Lindblom, "The Market as Prison" (1982) 44(2) *Journal of Politics* 324.

[129] Id.

[130] Examples are various. To take but one is Union Carbide's demand that it and its subsidiary, Dow Chemicals, be relieved of liability for Dow Chemicals' failure to clean up the toxic environment in and around Bhopal, India (infamously caused by Union Carbide in 1984) by "withdraw[ing] its application for a financial deposit [of US$22m] against remediation costs [of the Union Carbide Factory]" before Dow would consider more investment in India ('Postcard from Bhopal' (2007) (no. 1185, 25 May-7 June) *Private Eye*).

rule and popular accountability[131] – lie beyond the scope of this analysis, suffice it to make two brief observations. First, far from being the inevitable result of the growth of foreign trade, the retrenchment of democratic governance which may follow in the train of 'globalisation' lies not first and foremost in an apparent voluntary surrender of power to world markets but chiefly in *domestic* political decisions which have the aim or effect of rebalancing 'class forces' in favour of the major occupiers of such markets.[132] Second, given subsequent competition between states for finite multinational corporate investment in which states which deregulate to provide the most attractive investment climate are likely to succeed, it is difficult not to interpret the 'necessity' of the balance struck by the executive and, in *T-Mobile*, by the judiciary, as in fact being the necessity of avoiding being held to ransom by multinational corporate policy. Interestingly, as a *force majeure* to intimidate political authorities and drive political change, such multinational corporate investment policy bears comparison with current definitions of terrorism,[133] a comparison that may reward closer inspection.

Conclusion

Regulatory policy in mobile telecommunications has been framed as balancing the permitted private governance of the electromagnetic commons and subsequent growth of a dense mobile telecommunication system with what the Government has referred to as a precautionary regulatory approach, which in practice means a technically-framed, largely non-justiciable form of industry self-regulation. Concerns about the resulting 'balance' are fourfold. First, it rests upon a questionable narrowing of the debate by means of technocratic framing that in turn arises from an inadequate concept of precaution. Second, this framing obscures a deeper redefinition of significant relations between state and individual to the detriment of the latter and to the advantage of private 'benefit' providers. Third, this redefinition is effected by the executive's delegation of the governance of a key

[131] See, for example, Gill, op. cit., n. 122, pp. 174-86; S. Hobe, 'Globalisation: a Challenge to the Nation-State and to International Law' in *Transnational Legal Processes: Globalisation and Power Disparities*, ed. M. Likosky (Butterworth Lexis Nexis, 2002) 378-89; Held, op. cit., n. 121, pp. 197-235.

[132] P. Bourdieu and L. Wacquant, 'NewLiberalSpeak: Notes on the New Planetary Vulgate' (2001) January/February *Radical Philosophy*; see also Anderson, op. cit., n. 122, ch. 5; S. Strange, *The Retreat of the State.* (Cambridge University Press, 1996) Part I.

[133] See, for example, Lord Carlile, "Terrorism: Defining the Indefinable" (March 29, 2007), Cardiff Law School, University of Cardiff (http://www.law.cf.ac.uk/publiclecture/transcripts/290307.pdf accessed 9 January 2012).

resource to private concerns, its determination of material benefit and (thus far) by a judicial restriction of the right to meaningfully contest the avoidable imposition of risk presented as economic benefit. Fourth, a policy priority that underlies this implicit redefinition of constitutional relations is a perceived need to attract inward multinational corporate investment while simultaneously avoiding prospect of capital flight and any resultant loss of political legitimacy. The outcome of this constitutional shift is essentially a form of investor-led law reform reminiscent of Victorian Britain. The notion that restrictions on individuals' ability to resist the imposition of unconsented-to risks for private gain may be in the 'national interest', taken together with discussions in the present (and previous) Government on how to further 'streamline' planning in response to the projects of major investors,[134] underscore an outstanding legal and political need to clarify the basic duties and powers of a democratic state in an age of globalisation and privatisation, along with proper means by which the national interest may be publicly articulated and debated.

[134] The Planning Act 2008. On this and related measures to institutionalise streamlining in the Planning Inspectorate, see, for example, R. Cowell, 'The Greenest Government Ever? Planning and Sustainability in England after the May 2010 Elections' (2012) 27(4) *Planning Practice and Research* (in press); J. Maurici, 'Judicial Review under the Planning Act 2008' (2009) 4 *J. of Planning and Environment Law*, 446.