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EXPLAINING RADICAL POLICY CHANGE: THE CASE OF CLIMATE CHANGE AND ENERGY POLICY UNDER THE BRITISH LABOUR GOVERNMENT 2006–10

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An innovative framework combining the 'multiple streams' (MS) and 'punctuated equilibrium' (PE) models of agenda-setting is used to explain the transformation of UK climate change and energy policy under the Labour Government between 2006 and 2010. The coupling of the problem, politics and policy streams by policy entrepreneurs (MS), and changes in policy image and institutional venues (PE), were critical in opening a policy window, disrupting the existing policy monopoly and enabling radical policy initiatives. The case study suggests two revisions to the models: (1) policy windows can remain open far longer than either model typically predicts; and (2) party politics, especially where party competition generates a 'competitive consensus', can be important for both initiating and prolonging policy change in parliamentary systems. An important factor typically overlooked by both models is the significant policy entrepreneurship role that government ministers can play, particularly when an issue becomes part of their 'narrative identity'.

INTRODUCTION

One important, yet often overlooked, legacy of the last UK Labour Government was the development of a radical climate change and energy policy (CCEP). Centred on the pioneering 2008 Climate Change Act (CCA), between 2006 and 2010 the Blair and Brown administrations adopted highly ambitious new policy objectives backed by a series of major policy initiatives, including an almost complete overhaul of energy policy. The question addressed in this article is: why did Labour introduce this major policy shift at this particular time?

The CCA, and the energy policies which flowed from it, constituted a clear 'punctuation' – defined as 'shifts in the rate of policy change' (John 2012, p. 161) – in UK policy making in this field. Until 2006, the Labour Government had followed an 'incremental' approach to CCEP, with gradual refinements of policy but no major new directions. Climate and energy goals were traded off against other policy objectives and key objectives were not achieved. In 2006 there was a stark change in approach: not only did the Government announce much stronger targets for emissions reduction, but by putting them on a statutory basis the CCA in effect gave them priority over other policy objectives.

The extent of this transformation can be demonstrated by comparing the two Government CCEP programmes at the beginning and towards the end of the period: the UK Climate Change Programme (CCP), published in March 2006 (HM Government 2006), and the UK Low Carbon Transition Plan (LCTP), published in July 2009 (HM Government 2009a) (see table 1). The CCP was a model of incrementalism, admitting that existing targets would not be met, but adding few new policies to those already in place. It envisaged a reduction of UK greenhouse gas (GHG) emissions of just 2–3 Mt CO_2e (million tonnes of carbon dioxide equivalent) on average per annum for the following four years to 2010.

By contrast the LCTP, implementing the new targets of the CCA, set out a comprehensive range of new policies whose combined emissions reduction was projected at over 9 Mt

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CO_2e on average per annum for the ten years to 2020. The Plan aimed to change the composition of the UK's energy system, including an increase in renewable supply by sevenfold to 15 per cent (over 30 per cent in electricity). In establishing a 'low carbon industrial strategy', it introduced a brand new field of activity, seeking proactively to increase the UK technology, output, and employment gains from meeting its new targets. As one special adviser closely involved in the process put it, echoing the reactions of stakeholders and the media at the time, this agenda was 'a major shift in both the approach to and the substance of climate policy' (personal interview).

We use the 'multiple streams' and 'punctuated equilibrium' models to examine why this major policy change occurred when it did. We draw on data from extensive documentary analysis combined with a set of semi-structured interviews with elite actors involved in CCEP in and around the UK Government, including ministers, advisers, senior officials, and non-governmental organization (NGO) representatives. The multiple streams and punctuated equilibrium models are generally presented as alternative approaches, but our hypothesis was that they can also be combined to provide an effective explanatory framework. We find that the way in which the political dynamics unfolded in this case study exhibits a good fit with the key features of both models. However, neither model anticipates the length of time the policy window remained open in this case, which was characterized by several years of sustained policy innovation. We argue that a key factor in explaining this development is an element of both models that is largely ignored in its US applications: the role of party politics. Competition between the major parties generated a 'competitive consensus' in this field that not only stimulated but sustained the process of policy punctuation.

MULTIPLE STREAMS AND PUNCTUATED EQUILIBRIUM

Over the last two decades the widespread assumption that change in all policy sectors almost always occurs incrementally (Lindblom 1959; Wildavsky 1964) has been challenged by empirical studies showing that long periods of policy continuity are often replaced by sudden rapid substantive policy shifts or punctuations (Kingdon 1995; Baumgartner and Jones 2009). Explanations for this phenomenon have focused on the process of agenda-setting: why after years of low attention is an issue suddenly elevated up the political agenda ahead of others, and when do policy changes follow?

Increased political attention does not automatically generate substantive policy change. In an important early contribution to the agenda-setting literature, Downs (1972) argued that environmental issues go through cycles of attention, when they move from obscurity into a period of 'alarmed discovery' that generates a 'euphoric enthusiasm' amongst a public and media demanding government action to address a particular problem. But politicians and the public soon become aware of the social and financial costs involved in solving the problem and attention moves onto other issues. Significantly, this Downsian pattern seems to characterize US climate policies (Lane 2006). Yet whilst Downs argued that these brief moments of public fascination with an issue have little policy significance, others have identified an important long-term legacy where new institutions or programmes are introduced before public attention wanes (Peters and Hogwood 1985; Busenberg 1999; Baumgartner and Jones 2009).

Moreover, the agenda-setting literature is now replete with evidence that increased political attention can result in radical policy change. In particular, the multiple streams (Kingdon 1995) and the punctuated equilibrium (Baumgartner and Jones 2009) models

are arguably the most influential agenda-setting frameworks used to explain major policy shifts. Both were developed in the USA, built on insights from a federal political system characterized by separation of executive and legislative powers and complex checks and balances between them. These approaches have informed numerous North American studies of environmental policy change (Solecki and Shelley 1996; Cashore and Howlett 2006; Ingram and Fraser 2006; Pralle 2006; Baumgartner and Jones 2009).

Accusations that these American models would not travel well, notably to parliamentary and non-federal polities, have been tempered by successful applications to various policy sectors across Europe, albeit with some adaptation to different political contexts (e.g. Zaharidis 2003; Baumgartner *et al.* 2006; Brunner 2008; Walgrave and Varone 2008). Yet, despite growing interest in the UK (Zaharidis 2003; John 2006; Jennings *et al.* 2011; John and Bevan 2012), still 'not much is known about agenda setting in British politics' (Jennings *et al.* 2011, p. 74), with little specifically on environmental agenda-setting.

One aim of this study therefore is to fill this gap by assessing the applicability of the multiple streams and punctuated equilibrium frameworks to the UK through a detailed case study of CCEP. These models are particularly appropriate to this case study for three further reasons. First, both are primarily concerned with explaining policy change: Kingdon concentrates on change alone, while Baumgartner and Jones examine both stability and change. Second, both focus on agenda-setting rather than implementation, which reflects this case study where changes occurred primarily in the policy agenda and development stages of the policy process, with implementation largely left to the succeeding Coalition Government. Third, both frameworks emphasize the complexity of policy making, and are sensitive to interactions between many elements, including individual actors, institutions, ideas, and external processes – features essential to any analysis of climate policy, which requires an unusual degree of coordination of stakeholders both inside and outside government.

Our starting point is Kingdon's claim that major policy shifts may occur when the three 'streams' of problems, politics, and policies converge to open a 'window of opportunity' for change. The *problem* stream consists of various conditions that come to be defined as policy problems that demand the attention of policy makers. The *politics* stream has three main elements: the national mood, pressure group campaigns, and legislative turnover (Kingdon 1995, p. 146). The *policy* stream consists of the policy 'soup' of solutions developed by specialists – legislators, bureaucrats, NGOs, business entrepreneurs – within a sectoral policy community. These streams operate independently of one another but there are moments when compelling problems or political events lead the streams to converge and to open up 'windows of opportunity' for policy change. These are exploited by *policy entrepreneurs* who 'couple' the streams together 'to push their pet solutions, or to push attention to their special problems' (Kingdon 1995, p. 165) and thereby act as agents of change.

Policy entrepreneurs can be 'in or out of government, in elected or appointed positions, in interest groups or research organisations' (Kingdon 1995, p. 122). Wherever they are located, the successful policy entrepreneur needs both to attract the attention of policy makers and to indicate appropriate policy responses (Mintrom and Norman 2009). They may focus on selling their ideas to decision-makers but they will probably also try to build wider coalitions, ideally with a mass politics element to them for added pressure (Mintrom and Vergari 1996, p. 424). The process of coupling the streams is a 'search for fit'. Zaharidis (2003) distinguishes between *consequential* coupling, where problems emerge first, political pressure builds, and this stimulates governments to find policy solutions,

from *doctrinal* coupling, where the window opens first in the politics stream, prompting a search to identify a problem that fits a pre-existing (ideological) solution.

So to assess the applicability of the multiple streams model to our policy issue, our first research question was:

> *Research Question 1*: Were the three streams identifiable, did they open to create a window of opportunity for policy change, who were the policy entrepreneurs, and what kind (if any) of coupling took place?

Second, we wanted to see if the punctuated equilibrium model could also help explain this case study. Whereas Kingdon focuses on the potential for continual policy change, Baumgartner and Jones (2009) are equally interested in explaining the long periods of stability that precede dramatic bursts of policy change. They argue that policy-makers operate under conditions of bounded rationality: capable of focusing on only a few issues at a time, they give little attention to items low on the policy agenda. During 'normal' periods of policy incrementalism, policy making typically occurs within a sub-system dominated by institutions and actors who share a common understanding of the core issues: a *policy monopoly*.

Pressures for reform attract *negative feedback* from the policy sub-sector, creating a 'friction' that limits change to small incremental adjustments. But the opening of a window of opportunity can start a bandwagon or 'cascade' effect that provides *positive feedback* for new initiatives; the removal of the friction releases the pent-up pressure for change, sometimes resulting in major policy punctuations. But these periods of disequilibrium are brief: after change occurs, political attention shifts elsewhere and a new equilibrium evolves.

Baumgartner and Jones argue that periods of equilibrium are associated with general acceptance within a policy sub-system of a single *policy image*: the way in which an issue is framed and understood, and the discourse around it constructed. A transformation of the policy image enables would-be reformers to disrupt the prevailing policy monopoly, enabling radical policy change (Baumgartner and Jones 2009, pp. 7–8).

Change may also be facilitated by shifts in *policy venues* – the 'institutional locations where authoritative decisions are made' (Baumgartner and Jones 2009, p. 32). These institutions grant access to the policy process to certain actors who set the policy agenda and exclude access to those actors who do not accept the dominant policy image. When institutional venues change, new participants gain access to previously closed decision-making processes and existing actors may be excluded or marginalized, thus undermining the dominant policy monopoly (True *et al.* 2007).

Studies of US environmental policy, including Californian water management (Ingram and Fraser 2006), Pacific Northwest forestry (Cashore and Howlett 2006), and lawn pesticides (Pralle 2006), demonstrate the potential importance of venue shift in environmental policy, where sectoral policy monopolies are typically dominated by powerful producer groups. Although the UK polity historically has had fewer institutional venues than the US polity, CCEP is characterized by multilevel governance, with national policy shaped by global climate treaties and EU initiatives, so the scope for venue shift to destabilize the established patterns of authority over policy making is potentially significant.

Thus our second research question was:

> *Research Question 2*: Were there changes in the policy image and policy venues that reduced friction and negative feedback?

One feature of both models is that they identify the period of radical policy change as short-lived. Kingdon (1995) is quite clear that 'windows do not stay open long', a point he stresses repeatedly (e.g. pp. 166, 169–70, 204). He draws on Downs to emphasize their

short duration and the need to 'strike while the iron is hot', and in his empirical examples these windows typically remain open for only a few months before closing again. The duration of radical policy change identified in the punctuated equilibrium model is also brief, consisting of 'short, violent periods of change' (Baumgartner and Jones 2009, p. 4) that disrupt longer periods of policy stability. Although no precise duration is given, most studies of PE identify these punctuations as typically no more than a year before a new equilibrium is established.

Yet the 'window of opportunity' in our case study remained open for at least four years, from 2006 through to Labour's defeat in the 2010 election. (Following the LCTP, further policy announcements were made right through to May 2010, including the establishment of a comprehensive review of the functioning of the electricity market.) Indeed, arguably it remained open beyond this, with the Coalition Government adopting further radical policy changes in 2010–13, including an ambitious 'fourth carbon budget' setting new statutory targets out to 2027, the creation of a Green Investment Bank, the introduction of the 'Green Deal' promoting 'pay as you save' loans for household energy efficiency, and an Energy Bill to implement electricity market reforms (DECC 2013).

This extended nature of the policy window seems inconsistent with both models. So our third research question was:

> *Research Question 3*: Why did the period of policy change continue for longer than either model typically suggests?

We turn now to our case study: the radical transformation of UK CCEP (see table 1). In the following sections we apply the three research questions to this policy change and find strong support for our hypothesis that the multiple streams and punctuated equilibrium models can be combined to produce an effective explanatory framework. First, the problem, politics, and policy streams opened up and were coupled consequentially by policy entrepreneurs to create a window of opportunity for change. Second, this policy window was prised open further by a major alteration in the climate policy image and four significant venue shifts that together disrupted the dominant CCEP policy monopoly. Third, intense competition between the major parties and the particular nature of the CCA reinforced the impact of these institutional changes to ensure that the window of opportunity stayed open for considerably longer than either model anticipates.

QUESTION 1: THE MULTIPLE STREAMS MODEL

Problem stream

Kingdon (1995, p. 90) argues that issues become 'problems' demanding the attention of policy makers through 'indicators', 'focusing events', and 'feedback' on existing policies. This framework captures many of the dynamics at work in this case.

Indicators

During 2004–07 a plethora of scientific papers and conferences suggested that climate change would be much more severe than previously acknowledged, and the action required to control it consequently more radical. These culminated in the publication of the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) in February 2007, which confirmed that global emissions had to peak by 2015 if the widely accepted goal of limiting global warming to an average of 2°C above pre-industrial levels was to be achieved (IPCC 2007, p. 23). But rising global emissions showed no sign of slowing down.

TABLE 1 *The shift in UK climate change and energy policy 2006–09*

Indicator	UK Climate Change Programme 2006 (CCP)	UK Low Carbon Transition Plan 2009 (LCTP)
Greenhouse gas (GHG) and carbon (CO_2) emissions targets	Kyoto Protocol target: 12.5% reduction in GHG emissions by 2008–12 from 1990 levels Labour manifesto target: 20% reduction in CO_2 emissions by 2010 from 1990 levels	Climate Change Act 2008 targets: At least 34% reduction in GHG emissions by 2020 from 1990 levels (rising to c40% if EU target strengthened) At least 80% reduction in GHG emissions by 2050 from 1990 levels
Status of targets	Kyoto target was legally binding on the UK within EU; by 2006 UK was on track to meet it with no further policy measures CCP downgraded manifesto target into an 'aspiration' – policies in CCP were not sufficient to achieve it	CCA placed 34% and 80% targets into law. Secondary legislation defined statutory 'carbon budgets' (total emission limits) for 5-year periods 2020 target required further 18% emissions reduction from 2009; policies in LCTP were designed to achieve this
Projected emissions reductions from policies outlined	New CCP measures projected to reduce emissions by 7–12 $MtCO_2e$ by 2010 (equivalent to 2–3 $MtCO_2$ per annum)	New LCTP measures projected to reduce emissions by 94 $MtCO_2e$ by 2020 (equivalent to over 9 $MtCO_2e$ per annum)
Energy supply policies	CCP confirmed existing UK energy policy; no new policies outlined. CCP admitted existing target of generating 10% of electricity from renewables by 2010 would be missed £35m to be provided for development of carbon capture and storage (CCS) technologies	New energy policies (some of these announced 2007–09): 15% of all energy to come from renewables by 2020 (cf. 2% in 2007), including c30% of electricity Policy support to enable new nuclear power stations to be built No new coal-fired power stations without at least partial CCS Up to 4 CCS demonstration plants to be publicly funded Incentive policy (obligation on energy firms) for renewable heat
Energy demand policies	'Seek to achieve substantially higher carbon savings from the Energy Efficiency Commitment in 2008–11' Code for Sustainable Homes to be introduced with minimum energy and water efficiency standards £80m for microgeneration technologies	20% increase in energy efficiency obligation on energy supply companies by 2011 All new homes to be zero carbon by 2016 Smart meters to be installed in every home by 2020 Feed-in tariff to be introduced to subsidize microgeneration
Transport policies	Renewable transport fuel obligation (RTFO) to be introduced to increase biofuels to 5% of sales by 2011	RTFO increased so that 10% of UK transport energy to come from renewable sources by 2020 £400m subsidy and infrastructure investment programme for electric vehicles
Low carbon industrial policies	No new policies except microgeneration subsidy as above	'Low carbon industrial strategy' published, including £400m spending on UK industrial support schemes in offshore wind manufacturing, marine energy, low carbon vehicles (etc.)

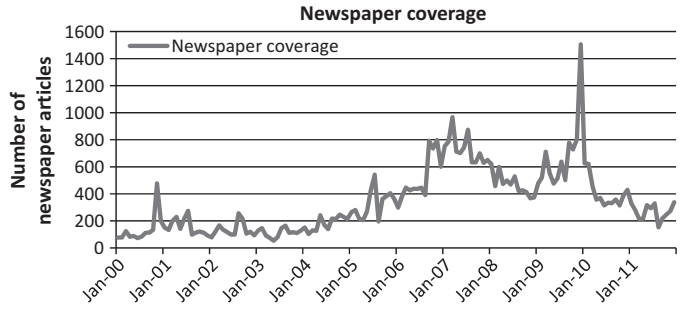

FIGURE 1 *UK newspaper coverage of climate change or global warming 2000–11*
Source: Boykoff and Mansfield (2012).

Focusing events

Meanwhile several events forced public and political attention onto the issue of climate change from mid-2005. Chief among them were the decision by Tony Blair to highlight climate change at the Gleneagles G8 Summit in July 2005, the release of Al Gore's documentary film, *An Inconvenient Truth*, in September 2006, and the publication of the Stern Review on the economics of climate change a month later. Gore's film drew large audiences and generated significant publicity; one survey found that 47 per cent of UK respondents reported that the film had 'changed my mind' on climate change (Environmental Change Institute 2007, p. 13). The Stern Report, which argued that stronger action to limit emissions was economically justified (Stern 2007), had an unexpectedly large impact, both in the UK and globally, in changing the terms in which the climate problem was discussed.

The consequence of both the growing weight of scientific evidence and these events was that climate change emerged as a significant media issue. Climate change stories were highlighted as deliberate editorial policy by the liberal media, especially the BBC and several broadsheet newspapers (Ereaut and Segnit 2006). Figure 1 shows that press coverage of climate change increased significantly from mid-2005, with huge spikes in the run-up to the G8 summit and after the publication of the Stern Report, initially peaking in early 2007 when the IPCC was published, then dipping before soaring to unprecedented heights in late 2009 at the time of the UN climate conference in Copenhagen. Although media coverage did not compare with a traditional core issue such as health (Gavin 2009, pp. 768–69), its permanent headline presence through 2005–09 gave climate change a new prominence in public discourse.

Feedback

During 2005–06 it became increasingly clear that Government policies would not deliver the radical emissions reductions demanded by the latest scientific evidence. After declining steadily through the 1990s, UK GHG emission trends had flat-lined. The process of preparing the January 2006 CCP and the July 2006 Energy Review (DTI 2006) focused attention within Government on the anticipated failure to achieve the 2010 targets for CO_2 emissions reduction and expanding renewable energy generation. The Government's climate strategy was attacked from multiple authoritative sources, including the Environmental Audit Committee (2006a, 2006b, 2007a), the Environment, Food and Rural Affairs Committee (2005), and the Sustainable Development Commission (2006).

A major concern was electricity supply, where the climate problem was increasingly linked to a rapidly approaching crisis arising from the planned closure of many coal and nuclear power stations after 2015. The Energy Review (DTI 2006, p. 82) estimated that around 30 per cent of existing capacity needed to be replaced by 2025, but the non-fossil fuel sector was unprepared to meet this challenge. The nuclear power sector was in decline, with no new reactors commissioned since the 1980s, whilst renewables contributed just 4.0 per cent of total electricity in 2005 (DTI 2006, p. 99).

The main plank of Government emissions reduction policy was the EU Emission Trading Scheme (ETS). But it delivered no emissions reductions in Phase 1 (2005–07), and there was growing concern about over-dependence on this innovative policy instrument to meet UK reduction targets (DTI 2006, pp. 29–35; Environmental Audit Committee 2007b; personal interviews). The Energy Review also conceded that far more needed to be done on energy efficiency (DTI 2006, ch. 2). Emissions were rising fastest in the transport sector, compounded by weaknesses in the EU's voluntary agreement with vehicle manufacturers (the Government's main instrument for reducing vehicle emissions) and the lack of measures to address the rapid growth of aviation (Environmental Audit Committee 2006b, para. 116).

Politics stream

Kingdon argues that changes in the political stream arise from 'swings of national mood, vagaries of public opinion, election results, changes of administration, shifts in partisan ideological distributions [in Parliament] and interest group pressure campaigns' (Kingdon 1995, p. 87). During 2006–07 most of these forces were manifest, combining to create a national mood receptive to Government action on climate change.

Before 2006 the political salience of climate change was low. Public concern about climate change was sporadic and limited. Britain was on course to meet its Kyoto targets, so the Government was under little pressure to act. Although the 2003 Energy White Paper (DTI 2003) had failed to map out a clear course on future energy supply, the environmental NGOs had struggled to make energy policy a climate issue. Neither Labour nor the Conservatives emphasized climate change; on the contrary, under William Hague's leadership (1997–2001) the Conservatives had lauded the 'fuel protesters' and promised to slash fuel duties and drop the Climate Change Levy (Carter 2009, p. 234). The Liberal Democrats were the only major party consistently campaigning on environmental issues. Yet during 2006 Britain experienced an unprecedented politicization of climate change.

The key moment was the launch of Friends of the Earth's (FoE) 'Big Ask' campaign in May 2005. FoE chose a simple but radical policy demand: a Climate Change Bill with statutory targets for annual emissions reductions. Fronted by high-profile celebrities, the campaign mobilized large numbers of supporters, reinforced by the formation of the Stop Climate Chaos coalition of over 100 diverse NGOs in September 2005. Coupled with increasing media coverage, these campaigns contributed to growing public awareness of climate change. By 2006 one poll found that 62 per cent of people thought that 'every possible action should be taken to limit climate change' and a further 32 per cent believed some action should be taken (Ipsos-MORI 2006).

These developments had a decisive impact on party politics, where two independent events interacted. First, David Cameron, elected Conservative Party leader in December 2005, made the environment a centrepiece of his strategy to 'detoxify' the Conservative brand and modernize the party (Carter 2009). After several high-profile media events,

including a visit to the Arctic to observe the impact of climate change, Cameron signed up to FoE's Big Ask campaign on 1 September 2006. By the end of the month FoE had persuaded 412 MPs to sign its Early Day Motion (2005) calling for a bill to make the emissions reduction targets statutory. With the Liberal Democrats already supporting it, Cameron's shift placed huge pressure on the Labour Government to respond.

Meanwhile, David Miliband was appointed Secretary of State at the Department of the Environment, Food and Rural Affairs (DEFRA) in May 2006. He was widely regarded as a future party leader: 'a man on a mission', as one former DEFRA official put it, 'who was very keen to get things done and done quickly' (personal interview). Within six weeks of Cameron endorsing the Big Ask, Miliband announced that he would be introducing a Climate Change Bill. As several interviewees noted, Cameron's support made the decision easier for Miliband to sell to his sceptical Cabinet colleagues by removing the risk of Opposition party attack. Miliband's private comment that 'We cannot be seen to be the only party not supporting this idea' provided a clear indication that for the first time the three major parties had started competing seriously to be greener than each other (*The Guardian* 26 October 2006).

Meanwhile influential elements of the business community made it easier for politicians to shift position by withdrawing their former opposition to progressive climate policies. Recognizing the potential commercial benefits of energy efficiency, the EU Emissions Trading Scheme (ETS) – where free allowances created valuable assets – and markets in green technologies, alongside the low-cost public relations value of appearing 'green', many business leaders hoped to influence (and perhaps moderate) policy from within the supporters' camp rather than resist and lose political influence. One example was the newly formed Corporate Leaders Group on Climate Change: its open letter to Blair in July 2006, calling for a strengthening of the EU ETS and tough emission reduction targets (Corporate Leaders Group on Climate Change 2006), had a significant impact on the Labour leadership (special advisers, personal interviews).

Policy stream

During 2006, when the rapid emergence of climate change as a compelling *problem* coincided with significant developments in the *political* stream to open an unprecedented window of opportunity for policy change, two key solutions became available to policymakers. The Climate Change Bill was one; but before announcing it David Miliband had already made an important intervention that marked out a potential new direction. Newly appointed to DEFRA, Miliband wanted to wrest the political initiative from Cameron on the environment (personal interviews). The Government had to set the level of the emissions cap in June for the second phase of the EU ETS. Deep disagreement between DEFRA, the Treasury, and the Department for Trade and Industry (DTI) had resulted in a proposed emissions reduction of 4.1–8.0 MtC below business-as-usual (BAU), with the Treasury/DTI insistent that it should be at the lower end of the range. But Cameron had challenged the Government to set the cap 'at the more ambitious end of the range' (Oslo speech, 21 April 2006). Miliband quickly persuaded Brown that the UK should lead by example, and after frenetic last-minute negotiations Brown committed to the maximum cut of 8 MtC.

Policy entrepreneurship

The principal policy entrepreneur in 2005–06 was Friends of the Earth, which did most to 'couple' the three streams together: identifying the Government's failure to deliver emission reduction targets, defining a solution in the form of a Climate Change Bill,

and winning cross-party political support for it. David Miliband acknowledged FoE's role when announcing the Bill. It was an example of 'consequential coupling', where the problem emerged first, political pressure built, and the policy entrepreneur provided the Government with a policy solution (Zaharidis 2003).

One interesting contrast between Kingdon's empirical work and our case study is the discovery that there was also considerable policy entrepreneurship *inside* government. For Kingdon (1995, pp. 179–80) the typical policy entrepreneur is an NGO (such as FoE) or a corporate interest. While acknowledging that policy entrepreneurs can be found inside government, he provides few examples, an omission that may reflect difficulties in identifying the involvement of US government officials when Kingdon was researching his book in the 1980s, prior to the increased government transparency arising from initiatives such as the Lobbying and Disclosure Act 1995. But the dearth of 'within government' examples may also be a feature of the US system, where the initiation of legislation in Congress provides particular opportunities for lobbying and entrepreneurship. In the UK, by contrast, policy is largely initiated by government and ministers are arguably more central. Indeed, one striking feature of CCEP is the entrepreneurial role played by several ministers.

Tony Blair's initial push on climate change in the international arena, when he made it a key theme of the UK's G8 and EU presidencies in 2005, was initiated during 2004, long before the issue began to infiltrate public consciousness or was taken up by FoE. He also encouraged the Corporate Leaders on Climate Change to write their public letter to him demanding action (special adviser, personal interview). In 2005, Gordon Brown commissioned the Stern Report and invited environmental NGO leaders to No. 11 in December 2005 where he encouraged them to organize a mass 'Make Poverty History'-style campaign that would enable the Government to justify stronger climate policy (special advisers, personal interviews). It was David Miliband who took the arcane issue of the EU ETS cap and turned it into a major symbolic battle within the Cabinet on the Government's environmental credentials.

Thus the image which Kingdon's framework can sometimes suggest of a government acted upon by forces and policy entrepreneurs located outside is belied in this case by the active role played by ministers themselves. Tentatively at first, then later more boldly (see below), the Government helped *create* the public concern and pressure that generated the political space it needed to develop a more radical climate strategy. Policy entrepreneurship became 'endogenous' to the political system and not simply an exogenous factor acting upon it.

The events of 2005–06, during which the three streams opened up and were coupled together through successful policy entrepreneurship, lend strong support to Kingdon's multiple streams as a framework for explaining why CCEP began to change in a radical direction. Can the punctuated equilibrium model then provide further explanation of this policy shift?

QUESTION 2: THE PUNCTUATED EQUILIBRIUM MODEL

Baumgartner and Jones observe that the opening of a window of opportunity can start a bandwagon effect as the issue is catapulted onto the macro-political agenda, politicians focus their attention on it, and pressure for change provides 'positive feedback' for new initiatives. The discussion of the problem and politics streams above shows how positive feedback for CCEP initiatives started to replace negative feedback during 2006. This process was steadily reinforced by changes in the 'policy image' of the problem and the 'policy venues' in which it was handled.

During 2006 the climate change policy image altered markedly. Previously global warming was seen as almost entirely an 'environmental' issue, and those engaged in debate around it were largely located within the environmental policy community. But the publication of the Stern Report gave climate change a new, economic framing. Its core argument – that, left unchecked, climate change would cause damage to the global economy of around 5–20 per cent of GDP per annum, whereas acting to mitigate it would cost only about 1 per cent of GDP per annum – provided a kind of macro cost–benefit analysis. It concluded that early action to reduce emissions (through an efficient mix of policy instruments) was economically justified.

The extraordinary global media coverage of the Stern Report had a powerful impact on the climate change discourse, shifting it from an environmental to an economic frame. It provided proponents of action with a new, economistic language to support their arguments, backed by authoritative evidence. 'The Stern Report was really very important in building the economic case as to why action now was necessary' (senior civil servant, personal interview).

The post-Stern shift in the policy image of climate change was striking. The Government and Opposition parties began emphasizing the goal of building a 'low carbon economy', highlighting the job creation and growth opportunities flowing from stronger climate policy. Business groups such as the Aldersgate Group of environmental sector firms and the UK Business Council for Sustainable Energy (which included all the major energy utilities) began to use the 'low carbon economy' discourse, often directly quoting Stern. The Confederation of British Industry (2007) followed suit, publishing a landmark report supporting stronger climate targets and clearer incentives for low carbon technologies. These economic arguments intensified after the financial crash of 2008, when the Government came under pressure to stimulate the economy to stave off recession. In July 2009 the Government published a 'low carbon industrial strategy', providing £405 million to support job creation and growth in 'green' sectors (HM Government 2009b).

Thus the change in policy image stimulated by the Stern Report not only contributed to the initial opening up of the policy window in 2006, but continued to legitimate stronger action on climate change in the period afterwards. The economistic discourse helped generate new constituencies for climate policy and enlarged the space for policy development.

At the same time changes in institutional policy venues allowed new participants to gain access to previously closed decision-making processes. Although DEFRA was ostensibly responsible for climate policy, before 2006 it was the Treasury and DTI (responsible for energy policy) which effectively constituted a 'policy monopoly'. They shared the belief that emissions reductions were best achieved by carbon pricing through the EU ETS, with otherwise minimal government intervention. But after the Climate Change Bill was announced, four venue shifts contributed directly to the development of a far more interventionist approach, disrupting the Treasury/DTI policy monopoly.

First, David Miliband created a new government institution in September 2006 with the deliberate intention of changing the nature of policy making. The inter-departmental Office for Climate Change (OCC) had representation from all the main departments affecting GHG emissions, including environment, energy, transport, business, overseas development, the Foreign Office, Cabinet Office, and Treasury. Unusually, it was given responsibility for developing and passing the Climate Change Bill, a function which would normally have been undertaken by an internal DEFRA team. Several interviewees emphasized that the OCC played a critical role in the transformation of CCEP between 2006 and 2008, bringing different (and often conflicting) Whitehall interests together to generate

consensus around an integrated approach. The effect was a noticeable undermining of the Treasury's formerly dominant influence.

Second, the EU acted as a major external policy driver. In March 2007 the European Council agreed ambitious new climate and energy targets for 2020, which required a 34 per cent reduction in UK GHG emissions and a 15 per cent target for renewable energy, both major increases over prevailing policy. Recalling the Treasury's opposition, one former DTI official observed that the target required 'levels of deployment that [were] probably physically unachievable in the timescale and certainly unfinanceable under the current regime' (personal interview). So in signing up to these targets, Blair and his successor Gordon Brown were effectively compelled to adopt a much more interventionist energy policy. The result was a major overhaul that included new and increased subsidies, new industrial incentives, and a new planning regime (DECC 2009).

The third venue shift was the creation of a new ministry, the Department for Energy and Climate Change (DECC), in October 2008. It combined the energy and climate portfolios previously split between the DTI (renamed the Department for Business, Enterprise and Regulatory Reform (BERR)) and DEFRA, with the aim of institutionalizing a coordinated approach to CCEP. Under an energetic Secretary of State, Ed Miliband, DECC quickly adopted ambitious emissions reductions at home and abroad as its main priority and began to develop the policies required by the EU and CCA targets.

Finally, the CCA 2008 created a new Committee on Climate Change (CCC) to provide independent advice to the Government on the carbon budgets needed to deliver its now statutory emission reduction targets. Though only advisory, the CCC was designed to be hard to oppose: 'it's a very effective sort of official lobby on climate change because ministers felt they couldn't really do less than the CCC had recommended' (DECC official, personal interview). Its influence was immediate: despite Treasury misgivings, the Government accepted its recommended carbon budgets in April 2009 and again (under the Coalition) in 2011.

These venue shifts radically changed the institutional dynamic of climate and energy policy making. Each shift took power away from the existing policy monopoly of the Treasury and business ministry, creating counterweights favouring stronger action to reduce emissions. They combined to create an institutional momentum that reinforced and sustained the positive feedback afforded to climate policy initiatives inside and outside government. Overall, the effect was significant. One insider compared the process of preparing the CCP during 2005 – 'a set of departments fighting for their own interests, which were to do less of this not more of it ... a ''how little can we get away with'' process?' – with the development of the LCTP in 2008–09. This was 'a collaborative process in order to do more not less, and each department wanted to do as much as it could ... the culture of the issue in Government had changed' (special adviser, personal interview). The shift between venues resulted in the kind of dramatic impact on policy observed by Baumgartner and Jones in the USA.

QUESTION 3: THE LONG PUNCTUATION AND PARTY POLITICS

Our analysis so far suggests that by combining the multiple streams framework and key concepts from punctuated equilibrium theory, a useful framework for understanding why UK CCEP changed so radically in 2006–7 can be constructed (one more comprehensive than either theory can provide on its own). But even this combination is not complete, because neither model fully answers our third question: why did the period of policy change continue for several years, longer than either model typically suggests?

The PE model does go some way to answering this question. As already discussed, the new post-Stern Report policy image allowed the 'low carbon economy' to be mobilized as a solution to the economic recession in 2008–10. Meanwhile, the venue shifts helped sustain positive feedback and prevented the re-establishment of the Treasury/DTI(BERR) policy monopoly.

Part of the explanation clearly also lies in the nature of the CCA itself. By setting statutory emissions targets which required further policy change to meet them, the Act effectively wedged the policy window open for longer than just the period of its own passage. Much of the subsequent policy radicalism derived from the requirements of the Act, not just during the Labour Government but for the succeeding administration too. All these factors were important, but one further critical dynamic needs to be added.

Party competition

Party politics receive only a brief mention in the original versions of both the multiple streams and punctuated equilibrium models (Zaharidis 2003; Walgrave and Varone 2008, p. 368; Green-Pedersen and Wolfe 2009), an omission Baumgartner *et al.* (2006, p. 965) put down to their US focus, which leads them instead to emphasize interest groups, think tanks, and other external policy entrepreneurs. However, in parliamentary systems dominated by the majority party (or ruling coalition), parties play a key role in policy making. Those studies that have investigated the role of parties in European countries have produced mixed messages about their impact.

Thus Green-Pedersen and Krogstrup (2008) find that parties play a key role in determining which issues end up high on the agenda, but Walgrave and Varone (2008) show that a high level of attention may not result in policy change if parties continue to block reform. Certainly the potential for many climate policies to create short-term losers – consumers facing higher energy bills, businesses burdened by new regulations or taxes – had historically discouraged the major British parties from supporting progressive climate measures or competing on environmental issues more generally, preferring a 'passive consensus' to play safe and do little (Carter 2006). Yet party competition made a vital contribution in our case study, by opening the politics stream in 2006, and then sustaining the pressure on the Labour Government to introduce progressive climate policy thereafter.

In effect, a 'competitive consensus' emerged among political parties on the climate issue. This factor, typically captured by the phrase 'the Cameron effect', was cited by all our interviewees as critical. Once Cameron had adopted his 'Vote Blue, Go Green' strategy in 2006, the three major parties competed to be greener than one another. Consequently, rather than generate 'negative feedback' from political opponents, new policy initiatives led to 'positive feedback' encouraging further action.

Crucially, Cameron's commitment to climate policy did not end with the CCA. As one Government adviser put it, the NGOs, especially FoE, 'almost had *carte blanche* to persuade the Tories to adopt pro-climate policies' in order to maintain their own green image and simultaneously keep up the pressure on Labour (personal interview). With the Liberal Democrats also keen to maintain their long-standing claim to be green, competition between the parties concentrated around two emblematic climate policy issues.

The first was Labour's plan to build a third runway at Heathrow airport. It was fiercely opposed by the NGOs and the Liberal Democrats, and in June 2008 Cameron declared that the Conservatives would oppose the proposal. Although the Government, strongly backed by the business community, eventually approved the new runway, the potential damage to Labour's climate reputation encouraged a fiercely fought rearguard

campaign in Cabinet led by Ed Miliband (DECC) and Hilary Benn (DEFRA) that won vital concessions regarding aviation emission levels and the allocation of landing slots to low emission aircraft (Hasan and Macintyre 2011, pp. 146–49).

The second issue was the application by the energy utility E.ON to build Britain's first new coal-fired power station in three decades, at Kingsnorth, Kent. A vociferous NGO campaign against the plant was backed by both the Conservatives and Liberal Democrats. Initially, the Business Secretary, John Hutton, was minded to approve E.ON's application: 'We were ready to give consent to Kingsnorth, and if we'd been around a bit longer we absolutely would have done', a senior adviser recalled (personal interview). But when the energy portfolio was integrated into DECC under Ed Miliband in October 2008, and the political pressure on the Government was stoked up by both main opposition parties, Miliband required a solution compatible with the Government's climate commitments. In April 2009 he announced that no new coal-fired power stations would be permitted unless they incorporated the new technology of carbon capture and storage (CCS). The Government would finance up to four CCS demonstration projects, funded by a levy amounting to a 2 per cent increase in consumer energy bills by 2020. This solution not only rescued the Government's climate credentials, but also won support from the energy industry (*The Guardian*, 23 April 2009).

Party competition was thus critical in shaping government policy. Opposition support for NGO positions elevated these issues into serious political challenges to the government, but the 'competitive consensus' also made the solution easier to implement, by removing opposition criticism. As the advisers we interviewed confirmed, cross-party consensus does not necessarily make environmental policies more popular with the public, but it reduces the risk of 'punishment' in media and parliamentary debate. In turn it makes it much easier for the proponents of a policy within the government to persuade their colleagues to support it (personal interviews).

It is important to note that the long policy window was not simply a response to the political salience of climate change. Whilst the proportion of people identifying the environment as one of the major issues facing Britain rose during this period, hovering at 5–10 per cent between mid-2007 and mid-2010, it remained far behind the traditionally salient voter issues, particularly the economy after the 2008 financial crisis. The parties continued to compete over climate change, not in search of major groups of voters but in response to external NGO pressure and internal 'branding' motivations.

A key feature of this process of party competition was the extent to which individual politicians made climate change part of their 'narrative identity': the set of distinctive positions and ideas which give leaders purpose and recognition. As climate change rose up the political agenda, Blair, Cameron, both Milibands, and others began to see it as a badge of progressive politics, encouraging them to take radical decisions as emblems of their political identity. Belatedly, it was also true of Gordon Brown, in his championing of the low carbon economy and commitment to reaching an international deal at the Copenhagen climate conference in December 2009. As it became part of the ideological commitment of the Labour Government as a whole, even those initially unconvinced, such as Alistair Darling and Peter Mandelson, participated, jointly announcing a major 'green stimulus' package in Budget 2010 as a response to the financial crisis. According to one special adviser, 'There was a point at which the British political elite basically embraced climate change' (personal interview). Policy innovation became not just a temporary response to special circumstances, but a major plank of the Government's overall political direction – a development that helps to explain the long policy window.

CONCLUSION

This case study of UK climate change and energy policy in the period 2006–10 suggests that, with a little modification, it is possible to combine the multiple streams and punctuated equilibrium models to provide a helpful framework to explain how and why radical policy change occurs. But it takes issue with their claim (or assumption) that policy windows remain open for no more than a year at most. In this case the Labour Government continued to pursue significant policy changes for a full four years, and arguably the window remained open for at least the first 18 months of the Coalition Government, which suggests a need to revise both models to allow for long policy windows and extended punctuations.

An obvious research question which then follows is whether similarly long punctuations are found in other fields, and if so whether they share similar characteristics to those exhibited here. In the climate change and energy case, a number of factors, including changes in policy image, shifting institutional venues and party competition, played a part in prolonging the period of change.

We particularly emphasize the critical role of party competition in explaining why radical policy change became possible, and was then sustained. This finding offers support to other European studies showing that agenda-setting models need to be supplemented by an explicit focus on political parties when applied to parliamentary systems (Walgrave and Varone 2008; Green-Pedersen and Wolfe 2009). However, unlike Walgrave and Varone (2008), who identify parties as an additional source of friction in the (Belgian) political system, blocking policy change, in this UK example we find party competition acting as a catalyst for it.

And rather than environmental politics becoming a left/right partisan issue, as in Denmark (Green-Pedersen and Wolfe 2009), the distinguishing feature of UK climate policy was the shift from a 'passive consensus' to a 'competitive consensus' in which each party tried to 'out-green' its rivals. Indeed, it was the weakening of cross-party consensus, as an increasingly critical coalition of sceptic Conservative MPs and right-wing press attacked the whole basis of climate policy, that appeared to have led to the eventual closure of the policy window during 2012–13, when the announcement of a new 'dash for gas' and refusal to adopt a new decarbonization target in the Coalition's Energy Bill signalled that the period of radical policy change was finally over.

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