

This is a repository copy of *Why do states in conflict with each other also sustain resilient cooperation in international regulation? Britain and telegraphy, 1860s-1914.*

White Rose Research Online URL for this paper:

<https://eprints.whiterose.ac.uk/184950/>

Version: Accepted Version

Article:

Heims, Eva Maria orcid.org/0000-0003-0696-4970 and 6, Perri (2021) Why do states in conflict with each other also sustain resilient cooperation in international regulation? Britain and telegraphy, 1860s-1914. *European Journal of International Relations*. pp. 682-707. ISSN 1460-3713

<https://doi.org/10.1177/1354066121997993>

Reuse

Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.

Article

Why do states in conflict with each other also sustain resilient cooperation in international regulation? Britain and telegraphy, 1860s-1914

Perri 6

Professor in Public Management
School of Business and Management
Queen Mary University of London

and

Eva Heims
Lecturer in Public Policy
Department of Politics
University of York

Acknowledgements

We are grateful to Dan Dunleavy, Simone Fari, George Lawson, Alejandro Pena and Dimitrios Stroikos and to two anonymous reviewers for this journal for their comments on earlier drafts of this paper, and to all those who attended and commented on a version which we presented in a panel at the British International Studies Association conference in Bath, 13-15.6.2018. None of them bears any responsibility for our errors.

Abstract

This article compares the explanatory power of five mainstream theories from international relations, political science and public management in understanding why, when they are engaged in deepening conflict and tension and even preparations for wars, states might simultaneously sustain deepening cooperation in global regulatory bodies. Analysis of explanatory power focuses on trade-offs among five key methodological virtues, and on buffering as an indicator of state unitariness. The theories are examined against the crucial case of one state's commitment to the first international regulatory regime, the International Telegraph Union and the Submarine Cable Convention of 1884, from the founding of the ITU in 1865 to the outbreak of the Great War. In this article, we use UK National Archives files to reconstruct Britain's decisions in telegraphy policy as our case of a state's decision-making. We focus on four key clusters of decisions, spanning three sub-periods. The study finds each of the theories can descriptively capture some developments in some sub-periods, but not for the reasons identified in the theory and without generality of application. It therefore provides the basis for future theoretical development work and demonstrates the value of theory comparison by analysis of trade-offs among methodological virtues.

Introduction

In periods of international great tension, erosion of great power commitment to multilateral regimes is commonly observed: in the 1930s withdrawals from the League of Nations and many European regimes such as the international river bodies (Eilstrup-Sangiovanni, 2020) accompanied protectionism and splintering of world trade. The US first began stymying the WTO's appellate body in 2011. The Trump administration only withdrew its threat to leave the Universal Postal Union when other members agreed to allow it effectively to set tariffs unilaterally. Increasingly China builds regional alternatives to bypass the Bretton Woods institutions. It is straightforward to appreciate why great powers find multilateral bodies frustrating, and to recognise that they can find alternative unilateral solutions outside, or be content with regimes which they have blocked from functioning. What is puzzling is why many remain and even deepen their cooperation through these regimes with other states with which they may have serious tensions.

Why, therefore, would states sustain commitment to international regulatory bodies which can constrain their discretion? During periods of deepening international tension and conflict, wars, rumours of impending wars and movements toward protectionism, one would expect that international organisations would experience refusals to join, withdrawals by existing members, stymied programmes, withering or even closure. States always have reasons both for leaving and for remaining committed to international regulatory cooperation. Simultaneous commitment by states to cooperation and conflict is not uncommon, but it remains puzzling where (a) it is sustained over decades when both commitment and conflict are *increasing* simultaneously (b) states have feasible alternatives, if they withdraw, (c) no specific concessions are offered to states contemplating withdrawal to induce continued commitment and (d) the supposedly 'technical' character of regimes' work cannot explain commitment, because that work is shot through with geopolitical and security considerations.

Yet without understanding why, when and exactly how reasons for commitment may outweigh reasons for leaving, especially in fields where regulatory cooperation has security implications, we lack understanding of causality in international affairs. The puzzle addressed here is *not* how and why international regimes persist resiliently, but, as Levy et al. (1995) called for work on, why *states'* commitment to them might be so resilient, especially as conflict rises and when states have other options. Commitment by enough states – even if some withdraw – is a necessary condition for regime resilience. For some global regimes, great power membership is important, though total collapse need not follow their withdrawal. But it is not sufficient: resilience of regimes depends on more than the sum of the resilience of the commitments of a critical mass of member states.

Recent research demonstrates that international cooperation is often difficult even where frameworks of cooperation are deeply institutionalised and when that cooperation is in key states' interests – for example, because of domestic pressures on governments' decisions (Hooghe *et al*, 2020). Realists have long argued that states use international organisations to advance their own interests (Stone 2011), which can obstruct institutionalisation of states' commitment.

This first article from a larger project aims to establish that despite decades of studies, a major gap in our understanding of this puzzle remains because even the most relevant theories struggle to explain state commitment in a 'crucial' case (one so central to the puzzle that any plausible theory should be expected to provide a reasonably powerful explanation for it). Because research advances comparing multiple theories' explanatory power, this article considers evidence for and against five key, rival, well-known and widely used explanations offered by international relations, political science and public management research, for states continuing and deepening cooperation through global regulatory bodies when states are engaged in tension. Our crucial case is one major power's commitment to a pivotal regime over fifty years of deepening great power tensions.

The next section introduces the five theories examined – namely, neoclassical realism, the integrative bargaining variant of liberal institutionalism, ideational theory, regulatory capture theory and bureaucratic politics. The following section explains why our case – Britain's commitment to the International Telegraph Union and Submarine Cable Convention – is a crucial one and justifies its selection. Britain is chosen not for any intrinsic empirical interest or inherent importance as a case but because it presents the general puzzle in its clearest and most demanding form, and because of its analogous relevance for understanding great power relations contemporary international regimes.

The paper then presents an exploratory evaluation of how these five theories fare in accounting for four key clusters of decisions. (Strictly, we examine the question as a foreign policy puzzle, using international relations theories reformulated as theories of foreign policy-making, rather than as theories of international structure.) A key contribution is to introduce the concept of buffering and to use it to operationalise hypotheses derived from these theories for understanding *how*, organisationally and in internal political and administrative processes of policy making, commitment would be expected to be sustained by each theory of *why* states might commit: for if the theory's account of how commitment is sustained is weak, then the account of why it might be sustained from which it is derived is likely also to be weak.

Continued use of multiple traditions in international relations shows that we cannot expect any one theory to explain all aspects of any case. Yet can fairly expect them to show reasonable trade-offs among the basic methodological virtues by which explanatory power can be measured, but

which cannot be optimised simultaneously (Przeworski and Teune 1970; 6 and Bellamy 2012). Theories' explanatory powers are rarely compared on their performance on those virtues and trade-offs, to structure a multi-criteria assessment: a key contribution of this article is to present an assessment in this form. The final section argues that, whilst each theory can capture aspects of particular governments' decisions in particular sub-periods, none fares well in explaining a major power's decision-making over several decades, nor are decisions predicted by the theories always driven by the reasons identified by the theories.

This article's contribution therefore is partly a critical and deck-clearing one, showing that a crucial case of a major power's resilient commitment is yet to be fully explained. Thus, the article presents a challenge to mainstream theories of foreign policymaking toward international regulatory cooperation. Secondly, we demonstrate the value of organisational theoretic concepts of buffering in assessing state unitariness for purposes of comparing theories. Third, the article also makes a significant methodological argument about how trade-offs among methodological virtues inform comparative theory assessment. In future articles, we shall develop a positive alternative explanation.

Exploring theories of international regulatory governance

International relations, political science and public management literatures have developed rival explanations for the institutionalisation of states' commitment to global regulatory agencies (for IR theories, see Hasenclever et al. 1997). These explanations cluster roughly around the core traditions of realism, liberal institutionalism, 'power of ideas', interest group capture and bureaucratic organisational process. Together, they provide a fair sample of the diversity of current principal frameworks.

To compare retrodictions of state unitariness, we examine theories' expectations about the extent of buffering (Thompson 1967; Lynn 2005) of economic regulatory cooperative priorities from security ones. By 'buffering' (adapting Lynn 2005 38ff for present purposes) we mean effects of informal or formal institutions, intendedly or otherwise, which insulate to a significant degree the work priorities of an entity (department, office agency, team, etc.) from threats of interference or obstruction by another entity.

Realist theories are broadly concerned with powerful states' strategic self-interest in security, and ultimately in territorial and military security, driving them to create and to sustain international regulatory organisations where they can be made to serve their security aims. This realist argument takes various forms including contrasting structural (Waltz 1979; Stone 2011; Krasner 1991) and neoclassical variants (Lobell et al. 2009; Ripsman et al. 2016), as well as others. Because this is a

policy process study (encompassing foreign and domestic policy departments and agencies), we focus on Type III *neoclassical realism* (Ripsman et al. 2016: Type III seeks to offer the most general version of the theory) rather than structural neo-realism, because the latter eschews predictions about specific foreign policy decisions but only predicts long-run trends, and claims to explain outcomes without any reference to internal processes. Although Narizny (2017) argues that neoclassical realism should not be counted as realist at all, it remains the theory of foreign policymaking decisionmaking closest to realist assumptions about states' priorities and capabilities. In the neoclassical realist view, the imperial or nation state is a unitary actor because key decisions on international cooperation are funnelled through the security-focused decision-making core institutions. However, neoclassical realism emphasises the domestic context shaping ways in which external threats and policy responses are evaluated under imperfect information both about security threats and other states' beliefs and intentions. States pursue relative gains, combining cooperation with conflict in order to pursue asymmetric relative gains. International cooperation and commitment to global regulatory bodies are pursued only insofar as they further these ends. Buffering of economic from security policy is expected to be limited, conditional, reversible, and tolerated only temporarily.

Liberal institutionalist theorists, by contrast, argue that states pursue their interests in a wide range of fields; where cooperation appears likely to enhance their economic strength, they commit to institutions embodying it and enabling them to gain by economic cooperation. This liberal institutionalist argument takes various forms including contractual strategies (Keohane 1984) and bargaining (Young 1991). Here, we concentrate on Young's (1989) *integrative bargaining* theory, extending it beyond regime formation to maintenance, because it makes neither the restrictive assumptions that the typical structure of games will be a prisoners' dilemma (unlike Keohane 1984) nor assumptions about states' knowledge of each other's intentions; nor (unlike Moravcsik 1997) does it assume that societal coalitions with well-formed preferences exist prior to and shape state policymaking. In liberal institutionalist accounts, states cooperating in regimes, motivated by search for absolute gains, are expected to be keener to participate than they would be on realist assumptions. They design their strategy for a mix of conflict and cooperation for absolute gains. States are expected to be unitary, although Young argues that this depends somewhat on domestic leadership. However, pursuit of absolute gains means that buffering of economic from security interests can be fairly strong where the payoffs from cooperation are expected to be large.

Rather than pursuing interests or objective payoffs, ideational theories argue that states' willingness to cooperate in global bodies is driven by prevailing beliefs, norms or ideas, either about their own or other states' or existing international bodies' problems, interests or capabilities.

There are many *ideational* theories; here we focus on those which accept a causal role for these beliefs (Blyth 2002; Morrison 2015; even despite his rhetoric, Wendt 1999) rather than strongly interpretivist accounts which reject causal explanation entirely. Because ideas conflict, states would not be expected to be unitary in beliefs, except where persuasion by ideas is complete. Strategy for the mix of cooperation and conflict will depend on the particular ideas or norms followed. Buffering would be driven by the degree of attachment of contrasting ideas around economic and security issues.

Regulatory capture theory rejects claims of states' unitariness and autonomy, arguing instead that interests of organisations which are outside the policymaking core but which are of economic or strategic importance to states secure control over or capture policymakers in their own private interests (Carpenter and Moss 2014; Mattli and Woods 2009). Those may be departments, state-owned enterprises or private commercial companies. This approach expects states to commit to international regulatory bodies when departments or companies which have secured influence over them see private advantages for their own purposes in working through the international regime. Here, we group regulatory capture theory with a hypothesis that at least some of the capturing enterprises (both the state-owned ones and the private, typically international corporations) are engaged in international cartel formation, normally for absolute gains in protection against predatory competition, and seek capture over international regulatory cooperation to secure and sustain their cartel. We also group this with epistemic communities theory (Haas 1992); although often associated with liberal institutionalism, this theory actually argues for capture not by economic interests but by coalitions of technocratic elites, who are argued to be already engaged in transnational communication before contributing to their takeover of intergovernmental regulatory bodies. Buffering is expected to be strong around zones captured by special interests, and defended on normative grounds by technocratic epistemic communities, but not necessarily otherwise. (Here we exclude the literature on international technical standard setting bodies, because in our period the ITU set hardly any standards, being preoccupied with tariffs instead.)

Another approach not treating the state as unitary is *bureaucratic politics* theory (Allison with Zelikow 1999 [1971]; Halperin et al. 2006), positing instead that departments of state and domestic public agencies will pursue their own private departmental interests, which might include the ability to use a commitment to an international body within their own government to make the case for more resources, more legal powers, or greater pre-eminence in or even control of inter-departmental policymaking processes, or opportunities for their own senior staff to secure status or fast-track promotion. Strategy for a mix of cooperation and conflict will depend on the relative power of security-focused and economically-oriented departments. Buffering of economic

departments' priorities for international regulatory cooperation against intrusion by other departments of state, including those of foreign and security policymaking will be will be strong, especially where key departmental or agency interests are at stake.

These five theories represent much of mainstream IR and political science wisdom on the question of states' resilient commitment to international regulatory bodies. An important way to compare the explanatory power of theories is to examine the trade-offs that their explanations of a case achieve among different methodological virtues. Przeworski and Teune (1970) established the key principle in social science methodology, that it is impossible simultaneously in the same explanation to optimise

- parsimony (explaining the greatest number of aspects of a case or cases with the fewest possible explanatory factors, mechanisms, etc.);
- generality (application to as wide as possible a range of aspects of cases, sub-cases such as sub-periods, or cases);
- goodness of fit (sometimes called accuracy or descriptive adequacy, meaning accurate prediction of the greatest level of empirical detail in cases); and
- causality (clear specification of causal mechanisms, causally significant constraining or amplifying contextual facts).

This has been developed and extended subsequently to include, for example,

fundamentality in causation (meaning capturing significant distal causes, rather than proximate or immediate causation) (6 and Bellamy 2012, 289).

At face value, the theories outlined above seem to strike different trade-offs between these virtues. For example, although Waltz's structural neorealism was prepared to sacrifice much goodness of fit to maximise parsimony and generality, we might expect from its core assumptions that Type III neoclassical realism would sacrifice parsimony for goodness of fit: in fact, its variables are many. Thus, after having considered the explanations of the case against the archival data, we assess the trade-offs actually achieved (as opposed to those predicted by the core assumptions) by each theory, after the empirical limitations of their explanations have been considered.

Case selection

Comparing theories' explanatory power for decisions taken under contextually different circumstances and conditions requires longitudinal analysis to examine change over time. To understand these dynamics over a sufficiently long period of deepening conflict to address the puzzle, therefore we must examine an historical case spanning several decades in detail. International relations scholarship has increasingly demonstrated the importance of studying

nineteenth and early twentieth century cases to refine and examine relevant theories (e.g., Buzan and Lawson 2015; Walter 2016).

Any good theory to explain a puzzle of this kind should be able to explain a ‘crucial’ case, meaning a “disconfirmatory most-likely” one for the puzzle (Gerring, 2007, 120-22) – in this case, where the outcome of commitment breaking down is a markedly more likely one than for other states. Examining a ‘crucial’ case can provide a justification for choosing that case on the dependent variable – namely, a case in which commitment was in fact sustained resiliently – at least for modest purposes of within-case theory-exploration, which this article’s aim (6 and Bellamy, 2012; Rueschemeyer, 2003). Thus, we use the concept of a ‘crucial case’ in relation to its particular outcome (resilient commitment) which is challenging to explain, rather than in relation to the predictions of one particular theory. For the purpose of this study we define a case a central or crucial one for this puzzle, where

- (a) it presents the puzzle in especially severe form, because the security tensions are very great but the commitment to cooperation is actually increasing, thus making it a particularly important case for any theory to explain;
- (b) where the state in question, although not actually a hegemon, is at least one of the great powers with an economy of sufficient global reach that unilateralism was at least a credible option, thus making it highly relevant to explain sustained commitment to membership; and
- (c) the regime in question arose sufficiently early in the development of international regimes that cooperation cannot be regarded as so institutionalised that withdrawal would have become unthinkable or that such powerful transnational non-state groupings might have grown up around it that they could realistically impose major costs on a withdrawing state, thus making the case a defining one for the field.

To make analysis manageable, we focus on a single case. A case which meets these criteria is that of Britain’s surprisingly resilient commitment to membership of the international regime for telegraphy between the late 1860s and 1914. Telegraphy was a revolutionary innovation of the nineteenth century which transformed communications in business, diplomacy, military operations and which both followed and amplified patterns of world trade and diplomatic connection but also helped to open up new global connections (e.g., Wenzlhuemer 2013). A key component of its international regime was the International Telegraph Union (ITU), the first global multilateral regulatory body (founded in 1865 at an international conference in Paris) and the first public international organisation to have its own bureau (created by treaty in 1868) with a civil servant rather than a politician as its director-general, the first to separate its constitution in treaty form from its regulations which could be amended at frequent opportunities and to locate its base in a

neutral state (Balbi et al., 2014; Coddling, 1952; Fari et al., 2015; Headrick, 1991; Krasner, 1991; Laborie, 2013; Lyall, 2011; Reinalda, 2009). Britain joined somewhat belatedly in 1871 well after the founding bargaining. From the late 1970s, the ITU held a series of so-called ‘technical’ (in fact, highly political) conferences on regulation at which states’ telegraph administrations argued over tariffs, regulations and ultimately over power and influence, yet with increasing regulatory ambition. The ITU continues to this day in the International Telecommunication Union, an agency of the United Nations. The regime’s other main component was the Submarine Cable Convention of 1884, at a period of heightened imperial tensions, signed in Paris after two global conferences and adhered to by 1914 by many nations which remained outside the ITU (Hills, 2002; Hugill, 1999; Kennedy, 1971). Together, they formed a joint regime governing vast global telecommunications networks and indirectly regulated the huge multinational cable companies which adhered to it.

Britain’s commitment to the regime meets the criteria because the global scale of imperial connections by cable made it feasible, had Britain been determined to do so, for it to withdraw from the ITU to run a separate imperial system, just as the US operated outside the ITU in this period, and because its relations with rival empires exposed it to intense conflict with other states in ITU membership. Even as telegraphy increasingly became bound to Britain’s geostrategies and as free trade stalled, Britain’s regulatory cooperation with other states continued through the ITU, including closer bilateral technical cooperation with Germany in the decade before the Great War.

Although their intercontinental cable connections still ran through Britain until the 1890s, to varying degrees, France and Germany operated at the same scale, had options, faced tensions with other empires, and struggled with many of the same dilemmas about how far and how simultaneously to pursue deepening cooperation with other states in the regime even as tensions mounted first over imperial strategy in Asia and Africa and then in the European theatre as alliance blocs manoeuvred through the series of crises leading to the Great War. Therefore analysis of the British case can illuminate features common to other member states, and may provide a basis for future comparative research on other European states’ relations with international regulatory bodies in this period.

Those tensions were both general and serious for Britain. Contrary to older notions of the nineteenth century as a ‘long peace’, the period from the Crimean war (1854-6) to the catastrophe of August 1914 was marked by deepening international conflict affecting Britain (Osterhammel 2014; Buzan and Lawson, 2015) including in international policy fields often thought of as civilian matters (Walter, 2016). Britain was anxious about the 1870-1 Franco-Prussian war and feared being dragged into European war if the 1875 “war in sight” crisis had led to a German attack on France

violating Belgium. Yet 1871 was the very year in which Britain joined the ITU, and 1875 was the year of the final ITU diplomatic conference at which Britain played a significant role. Imperial tensions with France over Africa culminated in the 1898 Fashoda stand-off, and each subsequent crisis from the second Boer War to the Great War stoked tensions between Britain and Germany, yet these were the years of Britain's deepest cooperation with France and Germany in telegraphy.

The two European unions which preceded the ITU worked successfully from the early 1850s, and then the ITU itself operated for six years before Britain agreed to join (Fari et al., 2015). By the 1900s, if Britain had withdrawn to create a separate imperial system, the ITU would not have collapsed. Yet its ability indirectly to influence the private submarine cable companies managing much of the global network many of which were headquartered or financed in Britain and which made Britain for decades the main hub in the global cable network (Wenzlhuemer, 2013) would have been greatly reduced. Its scope would have been largely limited to the landline network. The smaller submarine networks of the Danish, French and German companies (unless a British withdrawal and separate imperial system had encouraged those countries also to withdraw). The result would have been a balkanised 'splinternet' system, rather than a global regulatory framework. The choice of Britain's commitment for this study is therefore of analogous relevance to contemporary challenges, now that rival great powers are imposing their own data standards and controls on communications in their own spheres of influence, and now that great powers are threatening withdrawal from a number of longstanding global regulatory regimes.

Thus, the case is a crucial one for theories of state commitment to explain in the sense, not that Britain was crucial to the regime's survival, but that methodologically any good theory should be able to explain well the *deepening* commitment of a major power to cooperation with other states at a time when tensions were also deepening, when it had feasible alternatives and contemplated withdrawal, to a regime created sufficiently early in the development of global governance that there was not yet generalised institutionalisation default position or a norm of continued commitment (unlike for European countries after the formation of the League of Nations or more widely in the post 1946 period: Hooghe et al., 2020).

Having argued that Britain's commitment to the ITU and SCC is a crucial case, we explain our 'within case' focus. We have selected a set of clusters of decisions for examination, on the basis that an analysis of British governments' approaches to these decisions, when taken together, can suffice to examine the reasons that the British state remained committed to resilient maintenance and deepening of the international regime for telegraphy even when there were opportunities to act in ways that might have undermined it. We consider first the decision in 1871 to 'adhere' to the ITU, when previously British governments had declined invitations for involvement in

previous initiatives (e.g., as early as 1851), and the decision to remain a member when serious arguments were made in 1901 for possible withdrawal. Next we consider the long term goals which successive British governments pursued within the ITU, even when these goals clashed at least in the short term with demands made by other member states, which might have led to crises. Third, we consider the British approach to the ‘other half’ of the international regime for telegraphy – namely, the negotiation of the Submarine Cable Convention of 1884, when Britain committed to adherence but with a declaration which has often been regarded by historians as a significant ‘reservation’. Finally, we turn to the decisions in which tension could readily have arisen between national and imperial security goals including on the one hand, preparations for telegraphy in time of war and the arguments for ‘all-red’ lines, enemy cable ‘grappling’ and cutting, defence of landing sites and, on the other, commitment to the international regime, reviewing the deliberations in the Balfour of Burleigh committee in 1901-2 about possible withdrawal.

In each subcase, we consider the power of the five theories both descriptively and explanatorily in understanding British government approaches. For it is a reasonable expectation that theories which are offered to explain the general puzzle about why states would sustain international regulatory cooperation during deepening conflict should be able satisfactorily to explain decisions to join and remain in membership, withstand opposition within a regime without seeking to break it up, commit to all key parts of a regime and strike some workable settlement between regime membership and institutionalisation on the one hand and security goals on the other. If the main theories from across the social sciences struggle to meet this standard of within-case analysis on a crucial case, then this strongly suggests that there is space for a fresh approach to be considered.

Method and data

The qualitative case study design of this study focuses on a comparison among three sub-periods:

1. 1860s-the end of the 1870s: The ITU was created, its bureau was established during a founding series of conferences and conventions (1865, 1868, 1871 and 1875).
2. c.1879-c.1898: The Submarine Cable Convention was signed in 1884. ITU cooperation deepened through the coordinating work of the bureau with member states’ telegraph administrations (Balbi et al., 2014) and through the series of ‘technical’ conferences which developed, amended and updated the extensive system of regulations beyond the basic set agreed in 1875.
3. c.1898-1914: In the late 1890s through to 1904, the ITU bureau made heroic efforts to develop detailed regulation of codes and also extended its scope into telephony, although

it failed to persuade states to give it authority over the then new technology of radiotelegraphy.

To understand states' willingness to sustain cooperation in international regulatory bodies it is necessary to examine data from national archives, and not only to consider international bodies' own archival material.

To explore the issue of the degree of internal state unity, we have photographed and annotated in detail, using codes derived from these theories, key files from the UK National Archives in Kew and the British Telecom Archives in Holborn from all three sub-periods from the following departments: Cabinet series (CAB and occasionally PRO); Treasury (T); Home Office (HO); Foreign Office (FO); War Office (WO); Colonial Office (CO); Admiralty (ADM); General Post Office (POST); Board of Trade (BT); and in addition we have consulted some files from Transport (MT) and Railways (RAIL) series. This amounts to 160 files in all, some of which are very short but some of which run to thousands of pages in length.

Exploring five social science theories in the case of British decision-making on telegraphy policy, the ITU and SCC: analysis

The analysis of key decisions suggests that each of the theories has some *prima facie* descriptive adequacy or at least partial goodness of fit for at least some sub-periods, but also that each fails satisfactorily to capture key aspects of the case in its explanation.

The *neoclassical realist* approach appears to yield a broadly correct prediction for the third sub-period from c.1898-1914 in respect of the importance of military planning for cable-cutting in time of war, and to a lesser extent security arguments for 'all-red lines' in imperial strategy, and of coordination of policy across departments, in which the Committee of Imperial Defence (CID, from 1902 onward although building on some previous less successful initiatives in coordination: Mackintosh 1962; Johnson 1961) played an important part both formally and informally (CAB 16/14, Report of the Committee of Imperial Defence on Submarine Cable Communications in Times of War). The minutes of the committee show an ever increasing willingness to cut cables in times of war, while cable cutting was regarded as unlikely and arguments were put forward largely against cable cutting in 1902 (p. 206-p.207), it was considered a geostrategic necessity and certainty by 1911 (p. 211).

In the second sub-period, for the inclusion of the declaration in the 1884 Submarine Cable Convention, it performs much less well than might first appear. In the conference negotiations not one state objected to the principle that the convention applied only in peacetime; debate was

mainly about the peculiar, rather legalistic design of the British – almost certainly British FO Permanent Under-Secretary, Sir Julian Pauncefote's (a lawyer with no Admiralty or War Office experience: Neilson and Otte, 209, 62-67) – draft clause, written and presented at a very late stage (Pauncefote, PUS FO, to Government Law Officers, 24.1.1883, PRO 30/29/359), which had attracted little enthusiasm even in the Foreign Office (Kennedy, FO delegate to the conference and the influential head of the FO's Commercial Department, memo, 8.12.1883, PRO 30/29/359) and none elsewhere (Bateman Champain, Director of the Indian Telegraph Service, memo 15.11.1883, PRO 30/29/359 provided a pointed critique); even in the Admiralty and War Office who were informed at a late stage and merely noted that the draft clause would meet the Foreign Office (rather than their) objectives, and neither military department had been consulted on it nor thought it necessary, let alone strategically important (Tryon, Admiralty, to Fitzmaurice, FO, 14.1.1884, PRO 30/29/359). In inter-departmental exchanges in preparation and at the conference, much more contentious were issues about court jurisdictions, fishing interests, signals for cable repairing ships, etc. The clause was not agreed by other states and when Britain's fallback of an accepting anodyne Austrian clause got nowhere, the British 'declaration' was entered as a last minute face-saving operation (Granville, Foreign Secretary to Lyons, ambassador in Paris, 11.1.1884, PRO 30/29/359). The principle was not regarded as a major issue either by other departments or other states: other states thought the declaration simply unnecessary because it only stated the obvious: it was therefore hardly a 'reservation'. Moreover, in 1882-4, the wartime 'declaration' was not yet part of any coherent strategy for wartime cable-cutting in Britain or any other state (save perhaps Germany: memo by Kennedy, FO, 8.1.1884; nonetheless Germany had then then no worked-out geostrategic plan for it). There would be no be coherent British plan for wartime cable-cutting or for landing site defence for at least another fifteen years (CAB 18/16, 1898 interdepartmental committee on 'Control of Communications by Submarine Telegraph in Time of War') and no detailed one for cutting until 1911 (CAB 16/14 subcommittee on Submarine Cable Communications in Time of War, 11.12.1911). Indeed, in the early 1880s the Royal Navy was quite unprepared for a major power naval war (Friedberg 1988, 146). Therefore, neoclassical realism's explanatory power for Britain's strategy toward the Submarine Cable Convention is at best weak to moderate.

Even in the third sub-period, this theory performs poorly in explaining the role of the GPO in ITU conferences including their willingness to agree to the plan that the Union should encompass telephony regulation, where commitment to the pursuit of absolute gains continued to be important, nor does it explain why the Treasury, a key part of the core executive, continued to be reluctant, even after Hicks-Beach had left the Treasury for the final time, to subsidise

unprofitable all-red lines wherever the Admiralty and the CID called for them (civilian *usage* of international telegraphy often followed prior patterns of trade rather than creating new trade routes; yet many lines and cable were installed where there was no general economic interdependence, which itself shows the limitations of narrowly economic functionalistic theories of international cooperation in this field). Indeed, the GPO telegraph department's collaboration with the German telegraph administration was becoming closer and deeper in the final five years before the Great War, even though its leadership was also fully involved in CID planning (POST 83/72/TCB/282/23 *passim*). Nor is it clear that when the theory is descriptively adequate, its explanation is convincing. Security threats for Britain were not absent in the second sub-period, during 1870s or 1880s: the 1875 'war in sight' crisis, had it been as real a threat as many feared, could have entangled Britain just as later crises did. Concerns over the security of the route to India mattered objectively as much in the 1870s as they did in the 1890s and 1900s, yet they did not elicit the same policy response in telegraphy in the two sub-periods. For example, the revelation of incompetence and lack of policy coordination in the early 1880s over something as simple as the insertion of emergency powers of interception into landing rights concessions (HO 144/150/A38694. *passim* but esp. Home Office to Harcourt, 6.3.1885) shows how little security-driven coordination of telegraphy policy was in place in the first and second sub-periods. Buffering of civilian from security considerations in telegraphy was much more significant in all three sub-periods than the neoclassical 'funneling' account would expect, even in the final years when we should most expect security imperatives to dominate.

Integrative bargaining theory appears to capture some centrally important features of the first sub-period from the 1860s to the end of the 1870s. Balbi et al. (2014) show that Switzerland, for example, committed to the ITU in pursuit of absolute gains from increased volumes of traffic from which it could secure transit charges and was prepared to accept reduced relative gains in order to achieve this. Britain entered the ITU under considerable uncertainty about its own likely future position, not least because it was far too early to judge the future success of John Pender's (founder and controller of what became the Eastern Group, the technology giant of its era) investment of the proceeds of nationalisation of the domestic companies in ambitious international submarine cable companies, and although it still seemed likely in 1871 that the momentum in continental politics lay with free trade which would increase demand for international telegrams, the wars of Italian and German unification and Russian *revanchisme* over the Black Sea clauses engendered considerable uncertainty over future European trade (Marsh 1999, 79-87). Nevertheless, Britain's strategy within the ITU especially in the 1875 St Petersburg conference and for the subsequent decade could be said broadly to pursue absolute more often than narrowly

relative gains *vis-à-vis* other member states in its approach to particular proposed treaty and regulation changes, although considerations of relative status at least *vis-à-vis* non-member states were probably important in the 1871 decision to adhere (POST 30/228: ‘Report of the Messrs Chambre and Fischer’). Britain was prepared at least occasionally to rein in the demands of the submarine cable companies to achieve agreement, and played a broadly constructive role in facilitating the deepening of cooperation, even hosting ITU conferences and brokering deals, when that role could readily have been left to others. The GPO did this work with the full knowledge of the Foreign and Home Offices and Treasury, which were kept informed on key developments (POST 30/288: ‘St Petersburg Telegraph Convention – Main Papers’ and ‘Approval of St Petersburg Convention by Luxembourg and Romania’). Even in this period, the theory gives a poor prediction for the late decision to attend the 1871 conference at which the country first adhered to the conventions, the ungracious behaviour of its delegates there in demanding opt-outs (the term is no anachronism: it was used in the files) and its apparent lack of clear strategy or objectives (Robinson, n.d. 1875, ‘Report of the Indian delegates to the St. Petersburg telegraph conference 1875’, HO257/10, esp. pp.19-20). Integrative bargaining captures something, but not all of British strategy toward the 1869 American and then in the mid-1880s the French initiatives for what became the Submarine Cable Convention. Britain largely ignored early (1869) American proposals, responded initially with caution to the French invitation in 1882. Departments such as the Board of Trade were more concerned to limit a Convention’s requirement for changes to domestic law and to protect the jurisdiction of other negotiating for a such as the ‘Rules of the Road at Sea’ talks, than to bargain with other states (e.g., Farrar, BoT, to Dilke, FO, 19.5.1882, again 12.12.1883 and Calcraft BoT to Dilke 3.10.1882, PRO 30/29/359). Perhaps integrative bargaining theorists might explain this as simply a case of lack of domestic leadership for negotiation. Yet the Board, the Post Office and the Foreign Office were all keen to have delegates on the British team, and Kennedy provided informal leadership of the negotiating team: more fundamentally, what was missing was any great willingness to offer concessions in return for a more ambitious agreement than the modest but serviceable one which emerged. Nor does the theory perform at all well in understanding the growing coordination of telegraphy policy around imperial, military and security objectives in the third sub-period after 1898. In sum, the liberal institutionalist view over-predicts the pursuit of absolute gains (see below on the GPO’s deep misgivings about the Pacific cable scheme in the late 1890s), fails to account for British belated and reluctant engagement, and provides a poor explanation for the GPO’s close involvement in the third sub-period with the Committee of Imperial Defence’s plans for cable-cutting in war. Even when it predicts the extent of buffering, it does not account well for its motivations.

Ideational theory has limited grip. Because the ITU was the first global regulatory body, even after other public administrative unions were created, any norm for cooperation during conflict through them was still weak and novel: the fact that the regime had been formed through during the wars of German unification hardly create a very firm norm, that could bind, for example, Britain or Russia, and certainly did not bind the US which did not join in this period. True, Gladstone was in office when Britain adhered in 1871 and he had a longstanding sentimental hankering for ‘concert of Europe’ approaches to diplomatic institutional design. Yet, preoccupied as he and foreign secretary Granville were at the time with the aftermath of the Franco-Prussian war and the ‘*Alabama*’ case, Gladstone offered no written contribution to the adherence decision: it was never brought to Cabinet (Matthew 1982). Moreover, by this time, in the politically more central field of tariff reduction negotiations which could have framed his thinking, Gladstone now preferred bilateral to multilateral approaches (Marsh 1999, 85) so might have needed coaxing about a multilateral telegraphy treaty. Nor is there any evidence that Foreign Secretary Granville did much more than note the Belgians’ argument that it would be absurd for them to be left to claim to represent at the ITU the British interests at stake in the relationship between the British-owned company operating the cable between Britain and Belgium (Beaulieu to Granville, Oct.1870, FO 83/431), then fairly quickly approved a request and despatched it to the Treasury for final authorisation, which was in any case months in coming (Granville to Lords of the Treasury, 16.11.1870, FO83/431). If ideas mattered, there is no evidence of larger normative justifications in the archival data. True, in the third sub-period, ideologies of imperialism could readily be used as justifications for both Fleming’s proposals for the Pacific cable (Boyce 2000) and for Lamb’s (GPO) opposition to it (Report of the committee appointed to consider the proposal for laying a telegraph cable between British North America and the colonies of Australasia, March 1897, Col. Office, Misc 108, Minutes of Proceedings, Ninth day, 30.11.1896, esp. p.147, CAB 18/16. See also POST 83/61/TCB/285/9 for subsequent policy debates), and for both all-red cables wherever the Admiralty diagnosed some security concern and wherever the Treasury was persuaded that imperial considerations trumped open-ended financial commitments. Although Fleming argued for the Pacific cable by appeal to ideology of imperial economic integration, this was certainly not the decisive factor in the British government’s belated and reluctant decision to commit to it (Boyce 2000). In each of these cases, imperial ideology is a latecomer to the debates, which had in each case begun with arguments of much more mundane kinds about dominion economic development or about the commercial viability of particular cables or sometimes Admiralty sectional preferences. The Balfour of Burleigh committee’s 1901 consideration of possible withdrawal made no reference either to any general norm for membership or to imperialist

ideology as arguments for and against. Buffering between civilian and security considerations in international telegraphy policy was driven more by institutional than ideational forces.

As an argument for *regulatory capture*, Hills' (2002, 65) claim that the ITU was intended from the first as a cartel of national telegraph administrations has some surface validity, because it emerged from the prior continental unions based on arrangements for pricing, transit and for end-to-end flows of telegrams in land-based networks. Yet it is not adequate. The cartel itself – set out in the non-competition rule which eventually became the much worried-over Regulation 27 was not adopted at the founding 1865 conference nor in 1868 but only in 1871, and then it was very controversial among the continental members (Fari et al. 2015); only in 1875 after considerable discussion and difficulty was the principle of a cartel between the public telegraph administrations and private submarine cable companies agreed (Laborie 2013). It was moved from the convention to the regulations precisely to enable it to be amended and perhaps even watered down later on. Britain was never happy with the cartel rule, but accepted it, as a price to be paid for other, larger gains hoped for in the future. Moreover, cartels are not very resilient, as the example of OPEC reminds us. Defection is always a temptation. Cartels are fragile. Institutions do not survive and grow because they are cartels but rather they do so despite the problems of being a cartel. If the ITU was *nothing but* a cartel, then the steady, managed, reduction in prices is not straightforward to understand, because we would then either expect defection from the management of prices (as has happened many times in OPEC) or else no reduction in real terms at all.

More ink has been spilled over the question of whether the submarine cable companies captured states and Britain in particular (Müller-Pohl 2013; Winseck and Pike 2007) or the states manipulated the companies, than over any other question in telegraphy policy (Kennedy 1971; Hugill 1999; Hills 2002). Certainly, the 1871 decision to allow the companies to attend ITU conferences and to lobby but not vote, to adhere to regulations voluntarily in some areas but through their states to be subject to Regulation 27 rule against price competition does not support the argument for their full capture of the Union. At least in the founding conferences creating the conventions and the basic structure of the regulations, Fari et al. (2015) conclude that their influence was marginal, even over tariff setting; while that influence grew somewhat, it was never complete. Indeed, during ITU conferences cable companies (and some country delegates) regularly argued that it was other types of internationally operating businesses which benefitted from tariff reduction at the expense of cable companies and member states' taxpayers. However, there is scant evidence that ITU conferences or individual member state administrations were captured by this heterogeneous mix of internationally operating companies.

Arguments about capture of the British state over telegraphy policy either by the GPO or the submarine cable companies take a different turn for the second and third sub-periods. The GPO remained central to telegraphy policy making throughout, and rarely were its delegates absent from the main interdepartmental committees which coordinated policy in the third period, nor did the FO neglect to seek advice from the GPO, usually drafted by Patey's staff in the 1880s and Lamb's in the 1890s and 1900s on key decisions. Yet clearly the importance of security considerations in the third sub-period showed that on issues of subsidy of 'strategic' lines, other departments could outweigh the GPO and Lamb's neo-mercantilist objection to the Pacific cable lost out to Fleming's dominion (Pacific Cable Committee, Report, Minutes of Proceedings, &c., March 1897, CAB 18/16.). Moreover, the fact that the GPO's domestic telegraph operation proved consistently loss-making despite Scudamore's blithe promises of profits at the time of nationalisation (Perry 1992; Fari 2015) weakened their ability to control domestic policymaking, even though the Postmaster-General was regarded as one of the major offices of state (although not automatically in the cabinet) in much of the second half of the nineteenth century.

Capture of British state policy making on telegraphy by the submarine cable companies, as Müller-Pohl (2013) and Winseck and Pike (2007) have argued, has some *prima facie* evidence in its favour. Pender, and later, Denison-Pender, of the Eastern group, were able ask for and secure favours from British diplomats in difficult negotiations with foreign states over landing rights concessions following the Treasury decision in principle in 1867 to allow this support to given on a case-by-case basis, where wider British interests could be argued to be at stake (Headrick and Grisct 2001; however all British cable companies sought and sometimes obtained such diplomatic support: e.g., Britton and Ahvenainen 2004). In the third sub-period, despite Hicks-Beach's protests in 1901-2, the Treasury's purse was sometimes but after 1902 fairly rarely prised open to subsidise companies' unprofitable lines around the globe where imperial 'all-red' arguments could be presented for them, apparently feather-bedding not just Eastern but others too, and often more on the basis of Admiralty arguments for lines than company pressure. In the 1871 conference in the first period, the GPO appeared sympathetic to the claims by some of the companies that they might have voting rights at the ITU (Brown, n.d. 1871, 'Propositions to be submitted at the ITU conference to be held at Rome... and report on the same', pp.35-36. HO 257/3), although they made few efforts ever again to suggest it, after other countries dismissed it. In the second period, there is very limited evidence of capture by the submarine cable companies. In preparation for the Submarine Cable Convention, both the Board of Trade (Farrar, BoT, to Dilke, FO, 19.5.1882, again 12.12.1883 and Calcraft BoT to Dilke 3.10.1882, PRO 30/29/359) and the Post Office brusquely rejected Pender's demands for special privileges for company ships and for sea lanes

near cables (Patey GPO to Dilke, 5.10.1882, PRO 30/29/359). Then radical liberal president of the Board of Trade, Joseph Chamberlain, adroitly divided the companies, by securing some of Eastern's rivals' rejection of Pender's demands (Farrar, BoT to Dilke, FO, 31.3.1882 and again Farrar to Dilke, 6.5.1882, PRO 30/29/359). Müller-Pöhl (2013) is able to find occasions when GPO efforts under Patey to press for general tariff reductions were rebuffed and tamely abandoned; yet Lamb continued to press the companies for reductions on a route-by-route basis throughout the 1890s and early 1900s. Nor did business customers of international telegraphy show any organised interest in 1871 in actively pressing for British adherence to the ITU: their activity was confined to pressing for nationalisation of the domestic sector (Fari, 2015, 199-201 finds just one newspaper leader article and an article by Chadwick mildly suggesting advantages, and no chamber of commerce pressure.

If there was capture, it was hardly consistent or complete. Despite particular failures and apparently tame withdrawals, there is evidence that on many occasions, the GPO pressed the companies to reduce tariffs in its informal side-negotiations with them at ITU conferences, and it regularly advised the Foreign and Colonial Offices to make tariff reductions a condition of either supporting the companies in talks with other governments for landing rights or granting concessions in British colonies. The GPO's objections to the Pacific cable were not principally on the grounds that it would compete with Eastern's existing provision, but on grounds of British national (as opposed to imperial) commercial advantage. Moreover, the GPO's sensitivity, when it was shown, to the companies, usually rested on some recognition that the British state had induced them to operate loss-making lines with higher volumes of under-priced government messages than profitable private ones for the state's benefit, which rather suggests reciprocity for a degree of government capture of the companies (see e.g., 'Report of the committee on West Indian cable communications', esp. 'Statement by Mr Mackay', May 1904, p.15. CAB17/75). More generally, the evidence for capture is stronger, but still not decisive, for the third sub-period than for the first two sub-periods. In the context of security-driven imperial telegraphy policy, an opportunity was opened to the companies which was much less significant in the earlier periods, and we should give more weight to the institutional reordering of state policymaking which made this possible and regard the greater degree of company capture as a consequence rather than a cause. Even in this sub-period the British government was willing to subordinate company interest to geostrategic considerations in ways that were hardly favourable to the companies, as for example seen in the decision to make companies responsible for the repairs (including their costs) of cables which were cut in time of war (CAB 16/14, Committee of Imperial Defence, Report on Submarine Cable Communications in Time of War (December 1911), p. 7). Capture, either by the interests of the

nationalised domestic service or by the commercial submarine cable companies, explains neither the extent of buffering of civilian from security policy considerations nor its changing trajectory over the three sub-periods.

Epistemic community theory has the weakest grip on British policymaking around the telegraph. The transnational community of telegraph administrators grew up around the ITU and its two predecessor European unions, rather than existing fully fledged prior to its creation. Moreover, the regular attenders at the conference, even by the time they eventually became a kind of community, were career civil servants in postal and telegraphy departments, who reported to ministers and coordinated with other offices of state, not independent experts with authority based on recognised disciplinary professional knowledge, and therefore not an epistemic community. As far as Britain's involvement was concerned, the Society of Telegraph Engineers was established in 1871 (Müller 2016, 156-7), after the creation of the ITU or Britain's adherence, and its international influence in forming an epistemic community in telegraphy, which became considerable, was an achievement of the subsequent decades. Yet hardly ever do we see engineering advice being sought or offered on the key issues facing the ITU such as tariffs or code language or British telegraphy policy: key technological elements in regulations such as the early commitment to the international use of the Morse code were not significantly influenced by organised representation of engineers as a profession; moreover, early ITU efforts which might be said to have been designed *create* an epistemic community were sometimes thwarted, as when the proposal for an international training college was rejected (Laborie 2013). Indeed, the ITU did not host its first conference for telegraph engineers until 1908, and only managed two more before the outbreak of the Great War (POST 30/2921B).

Bureaucratic politics theory predicts departmental interests, turf wars, role-based conflict in interdepartmental coordination and a causally powerful role for these things in shaping policymaking. Descriptively, there are indeed some signs of such activity. For example, in his time at the Admiralty in the liberal government after 1906, Churchill could fire off memoranda demanding apparently that his department's interest in telegraphy was so crucial that the Admiralty's control of decision-making over the introduction of censorship should be final (Churchill to Ottley CID, 15.2.1912, CAB17/92): predictably, such typically importunate behaviour attracted no support, and the Committee of Imperial Defence insisted that all departments had a legitimate right to be involved (Ottley to Churchill, 1.1.1912, CAB 17/92). Although its expertise rested mainly on its operation of the domestic sector and domestic delivery of messages from the companies landing sites and routing domestically generated outward-bound messages to them, the GPO clung determinedly to its role in representing the British government

in global policy at the ITU and in shaping internal debate on global telegraphy policy (as evidenced by its major contributions, for example, to the debates in committee inquiries about the Pacific and West Indian cable systems: see above), even when one might imagine that the creation of the commercial department within the FO (Otte 2013) might have challenged it. Yet capture by the GPO certainly cannot explain the decision to adhere in 1871. The GPO was then focused on nationalisation of the domestic companies and their management within its structures, was reluctant to join at that point, and devoted rather little attention to the ITU until after 1871: its contribution to the 1871 Rome conference was modest and rather begrudging. Nor did GPO Second Secretary Patey's contributions to the inter-departmental discussions in preparation for the Submarine Cable Convention focus much at all on any desires arising from, let alone special privileges for, the GPO's own domestic telegraph service's interface with the submarine cable companies at landing points (See e.g., Blackwood GPO to Tenterden, PUS (before Pauncefote) FO,19.5.1882, PRO 30/29/359). More important, the role-based turf wars and infighting predicted by bureaucratic politics theory are marked more by their absence, save perhaps mildly in the third sub-period, than by their presence. Not only was no challenge offered by the FO to the GPO's monopoly of representing the government at the ITU, the one department which could credibly have claimed to have an expertise and interest in leadership, the Board of Trade, showed itself largely somnolent on telegraphy for much of the century, save to protect its 'Rules of the Road at Sea' forum from encroachment by the conference on the Submarine Cable Convention in the early 1880s. The Board mechanically registered company documentation, but its main role was the granting of landing rights in the UK, which gave it the most direct connection with what could have been the basis for regulation of the submarine cable companies. Yet it exerted itself hardly at all. When the Balfour of Burleigh committee proposed in 1902 that the Landing Rights Committee become the central coordinating body on telegraphy in Whitehall, there was little of the turf battling that this theory would predict (CAB 18/16, Report of the Inter-Departmental Committee on Cable Communications (August 1901); Inter-Departmental Committee on Cable Communications, Second Report (March 1902), especially p. 34.). If there was turf war at all, then it is to be found in the third sub-period when the Committee of Imperial defence had become established, forming both an informal institutional context and a formal court of appeal in which to conduct the kind of hand-to-hand administrative combat which this theory would predict. Even the Committee of Imperial Defence's work considering cable cutting in time of war was often characterised by productive cooperation between the different departments. As with neoclassical realism, integrative bargaining and capture and cartel theory, where we do see bureaucratic politics, it is not for the reason that the theory claims. For these reasons, too, bureaucratic politics does not

explain either the extent or the limitations of buffering well. For example, it does not explain Lamb's (the GPO's) national geostrategic rather than departmental view of the Pacific cable or the department's simultaneous enthusiastic commitment in the third period to work with CID on cable-cutting while deepening technical cooperation with the German telegraph administration, nor does it explain the fact that the war reservation in the Submarine Cable Convention came from Foreign Office legalism and not at all from the Admiralty or War Office.

Discussion

This empirical analysis shows that between the 1860s and 1914, no single security, economic or telegraph administrative or company interest rationale or set of ideas explained Britain's commitment to deepening cooperation in the regime while also deepening tension with other key member states. Commitment wavered in 1901 but held, while the GPO became ever more embroiled both with the ITU and with the Committee of Imperial Defence.

In this section, we analyse the findings of the limitations of each theory's explanation by examining the trade-offs among the rival methodological virtues which each has actually achieved. Table 1 below summarises the key findings from this section, comparing the theories against each of these methodological virtues.

Table 1: Comparing theories on methodological virtues

<i>Methodological virtue</i>	<i>Parsimony</i>	<i>Generality (by sub-periods)</i>	<i>Goodness of fit</i>	<i>Causality</i>	<i>Fundamentality of causality</i>
<i>Neoclassical realism</i>	Strong for about the centrality of the: security dilemma, boundedly rational relative gain pursuit, central foreign policy institutions Weak for intervening variables, which make up a considerable list (Ripsman et al., 2016, 58-79 admit that they sacrifice parsimony in intervening variables for explanatory power)	Strong for Committee of Imperial Defence part of telegraphy policy in 3rd sub-period, but not for ITU-facing elements; weak for 1st sub-period; weak to moderate for 2nd sub-period, even for SCC ‘war reservation’	Strong but only for part of telegraphy policy in 3rd sub-period, otherwise weak	Moderate: clear specification of mechanism based on security dilemmas, but not well integrated with financial policy; conventional neoclassical realist domestic factors such as leadership image play no major role; strategic culture has some grip for 3rd sub-period	For this case, weak: capacity for security-driven telegraphy policy appears to depend upon prior institutional ordering
<i>Integrative bargaining</i>	Moderate: although pursuit of gain under uncertainty is fundamental, needs several additional factors including leadership, not fully integrated	Stronger for 2nd sub-period, but weak for adherence in 1st sub-period and for imperial policy in 3rd	Weak: in 1st sub-period adherence decision, little effort in bargaining; when put more effort into bargaining in 2nd sub-period ‘technical’ conferences, was in conditions of greater	Moderate: clear specification of mechanism based on boundedly rational absolute gain pursuit under uncertainty but unclear how far the additional factors such as leadership offset core mechanism. However, in	For this case, weak: capacity for bargaining depends on prior institutional capacity and ordering not itself explained, and does not explain scope restriction to exclude radiotelegraphy

<i>Ideationalism</i>	Strong: prior belief in normative ideology requires few additional factors	Poor in 1st sub-period – no obvious application in adherence; some application in imperialism in 3rd sub-period but late contribution of ideological arguments suggests a reinforcing role	certainty, contrary to prediction Poor: connection between available ‘concert of Europe’, ‘imperialism’ ideologies and particular decisions hard to discern; unclear why other available ideologies had no grip (e.g., ‘tariff reform’ imperialism in 3rd sub-period)	this case, not at all clear that uncertainty played the causal role in 1865 formation or 1871 British adherence that the theory would predict. Weak to modest: clearly specified mechanism, but unclear how prior deep or widespread belief has to be for the mechanism to work; neither free trade nor imperialism ideologies clearly drive telegraphy policy	Weak for this case: ideologies appear to be reached for, after options are developed and commitments already entered into, and used with considerable flexibility
<i>Regulatory capture, cartel and epistemic community</i>	Strong: capture mechanism by boundedly rational pursuit of interests for each of these three is parsimonious, although weakened by need for additional factors to explain how collective action problems are overcome	Weak: cartel rule was not adopted initially in ITU; doesn’t explain persistence into 3rd sub-period; Moderate for capture by submarine cable companies, because at least as much evidence of state long term manipulation of companies as of company manipulation of	Moderate: can’t explain adherence, because not priority for GPO or submarine cable companies for key routes; fails seriously in explaining debates in preparation for the SCC in second sub-period, where one would expect to perform well; explains participation in	Weak: unclear what thresholds required for capture (Carpenter and Moss, 2014). Provides little explanation for key subcases such as treatment of Eastern during preparation for SCC, or public sector option selected for Pacific cable.	Modest for this case: impact appears late in adherence, late in imperial ‘all-red’ or cable-cutting preparation, and doesn’t explain why submarine cable companies rather than fishing industry dominated in SCC preparation

<p><i>Bureaucratic politics</i></p>	<p>Strong: boundedly rational pursuit of departmental interest under competition is parsimonious</p>	<p>government; poor for epistemic community</p> <p>Modest: some evidence of infighting in 3rd period, but little before then; departmental interests often ambiguous in 1st and 2nd periods</p>	<p>cable-cutting preparation debates but not content of plan agreed; epistemic community theory is weakest, because although helps to explain fascination with code language in 3rd period, the community develops after the key decisions</p> <p>Modest: although makes some sense of Admiralty strategy, does not explain GPO approach to adherence or tariff reduction, and fails to account for Board of Trade passivity</p>	<p>Moderate: mechanism is clear although mitigating and offsetting factors not fully specified. But difficult to see the mechanism operating powerfully enough to explain key decisions in any sub-period.</p>	<p>Weak for this case: capacity for bureaucratic competition appears to rest upon prior institutional ordering</p>
-------------------------------------	--	---	--	--	--

As highlighted in the table, none of these theories achieves strong goodness of fit across the whole period. In sub-periods in which they achieve some goodness of fit, their capture of causality does not show fundamentality: it is not for the explanatory reason that the theory itself offers. While each has some degree of parsimony in the number of basic causal mechanisms and factors used, that parsimony is deployed at the levels of ascribed motive as self-interest of some defined unit (neoclassical realism, integrative bargaining, capture and bureaucratic politics) and justification (ideationalism). If each lacks fundamentality, then we might be prepared to accept a different trade-off between levels of analysis, allowing a little less parsimony and variation at the level of motive and justification as they vary between sub-periods, if we can achieve parsimony again at more fundamental levels of causation. Thus, none of the five prominent theories entirely satisfactorily explains our findings; in particular, although each captures some important factors, none of their accounts of how a state's commitment should be sustained explains the patterns of buffering observed. In future articles we shall offer alternative explanations. While scholars who focus on exploring complex causality in international relations may not be surprised that none of these theories performs well, the findings raise questions for those who are more committed to the importance of particular sets of causal forces as emphasised by any of the mainstream theories.

Conclusion

The study's obvious limitations qualify our conclusions. We have not examined all variants of realist, liberal institutionalist or bureaucratic politics traditions, nor have we ventured empirically beyond a single member-country case and period. We offer not a full test but a comparative empirical exploration of the explanatory power of these theories against the crucial case of British commitment to the regime even as conflict with other member states grew. If sound, however, our present finding is significant for the study of international regimes. If these theories cannot satisfactorily retrodict and explain the founding and template-setting case of an important state's commitment to an international regulatory regime, this finding casts doubt on their value more widely.

Our emphasis on buffering as a measure of *how* simultaneous commitment to deepening cooperation and conflict is institutionalised within the executive, and as an operationalisation measure for theories, challenges the adequacy of the recent emphasis in regime theory on combining theories by recognising functional imperatives on the one hand but offsetting them by exogenous 'politicisation' which can take the form of hostility to multilateralism, so sacrificing some parsimony for better goodness of fit (Zürn, 2018; Hooghe et al., 2020). When, as is not

uncommon, states pursue cooperation and conflict simultaneously, an adequate theory of why they do so must provide a sound theory of *how* they do so, in the internal machinery of government as an ‘organisation of organisations’, and not only an account of the balance of pressures from wider societal politics. From each of those regime theories standardly classified as driven by power, interests or knowledge (Hasenclever et al., 1997), hypotheses about institutional capability, or how imperatives are buffered, can be derived. By contrast, combining theories by offsetting may capture background factors (Hooghe et al., 2020, 105-120) but not the causal *process* of how commitments are buffered. This is not necessarily a strong trade-off between generality and causality.

Our argument also suggests that the study of regimes benefits from comparative evaluation of theories’ explanatory power using the basic methodological virtues as categories for multi-criteria assessment.

Understanding the fundamental puzzle of why conflict and international regulatory cooperation can run together is as relevant today as it was in the early years of the twentieth century. Moreover, at a time when the US has increasingly attacked international organisations using arguments that partially echo the 1901 Balfour of Burleigh committee’s threat in its first report to propose withdrawal from the ITU, the question seems particularly urgent, about how and why great power states’ commitment to international regimes has in the past persisted through tensions, shocks, mistrust and even wars.

References

- 6 Pand Bellamy C (2012) *Principles of methodology: research design in social science*. London: Sage.
- Allison G with Zeilikow P (1999 [1971]) *Essence of decision: explaining the Cuban missile crisis*, 2nd edn. Reading, Massachusetts: Addison Wesley Longman.
- Balbi G with Fari S, Richeri G and Calvo S (2014) *Network neutrality: Switzerland’s role in the genesis of the Telegraph Union, 1855-1875*. Bern: Peter Lang.
- Blyth M (2002). *Great transformations: economic ideas and institutional change in the twentieth century*. Cambridge: Cambridge University Press.
- Boyce R (2000) Imperial dreams and national realities: Britain, Canada and the struggle for a Pacific telegraph cable, 1879-1902. *English historical review* 115(460): 39-70.
- Britton J and Ahvenainen J (2004) Showdown in South America: James Scrymser, John Pender, and United States: British cable competition. *Business history review* 78(1): 1-27.
- Buzan B and Lawson G (2015) *The great transformation: history, modernity and the making of international relations*. Cambridge: Cambridge University Press.

- Carpenter D and Moss D (eds) (2014) *Preventing regulatory capture: special interest influence and how to limit it*. Cambridge: Cambridge University Press.
- Codding G (1952) *The International Telecommunication Union: an experiment in international cooperation*. Leiden: EJ Brill.
- Eilstrup-Sangiovanni M (2020) What kills international organisations? When and why international organisations terminate, *European journal of international relations* doi: 10.1177/1354066120932976.
- Fari S (2015) *Victorian telegraphy before nationalisation*. Basingstoke: Palgrave Macmillan.
- Fari S with Balbi G and Richeri G (2015) *The formative years of the International Telegraph Union*. Cambridge: Cambridge Scholars Press.
- Friedberg AL (1988) *The weary titan: Britain and the experience of relative decline, 1895-1905*. Princeton, New Jersey: Princeton University Press.
- Gerring J (2007) *Case study research: principles and practices*. Cambridge: Cambridge University Press.
- Haas PM (1992) Introduction: epistemic communities and international policy coordination. *International organisation* 46(1): 1-35.
- Halperin MH and Clapp PA with Kanter A (2006 [1975]) *Bureaucratic politics and foreign policy*. 2nd edn. Washington DC: Brookings Institution.
- Hasenclever A, Mayer P and Rittberger V (1997) *Theories of international regimes*. Cambridge: Cambridge University Press.
- Headrick DR (1991) *The invisible weapon: telecommunications and international politics, 1851-1945*. Oxford: Oxford University Press.
- Headrick DR and Griset P (2001) Submarine telegraph cables: business and politics, 1838-1939. *Business history review* 75(3): 543-578.
- Hills J (2002) *The struggle for control of global communication: the formative century*. Urbana, Illinois: University of Illinois Press.
- Hooghe L, Lenz T and Marks G (2020) *A theory of international organisation*, Oxford: Oxford University Press.
- Hugill PJ (1999) *Global communications since 1844: geopolitics and technology*. Baltimore, Maryland: Johns Hopkins University Press.
- Johnson, FA (1961) *The British Committee of Imperial Defence, 1885-1959*. Oxford: Oxford University Press.
- Keohane RO (1984) *After hegemony: cooperation and discord in the world political economy*. Princeton, New Jersey: Princeton University Press.
- Kennedy PM (1971) Imperial cable communications and strategy, 1870-1914. *English historical review* 86(341): 728-752.

- Krasner SD (1991) Global communications and national power: life on the Pareto frontier. *World politics* 43(3): 336-366.
- Laborie L (2013) Globalizing the telegraph: the ITU and the governance of the first globalization of telecommunications, in Hampf MM and Müller-Pohl S (eds) (2013) *Global telecommunication electric: business, news and politics in the world of telegraphy*. Frankfurt: Campus-Verlag, 63-91.
- Levy MA, Young OR and Zürn M (1995) The study of international regimes. *European Journal of International Relations* 1(3): 267-330.
- Lobell SE, Ripsman NM and Taliaferro JW (2009) *Neoclassical realism, the state and foreign policy*. Cambridge: Cambridge University Press.
- Lyall F (2011) *International communications: the International Telecommunication Union and the Universal Postal Union*. Aldershot: Ashgate.
- Lynn ML (2005) Organizational buffering: managing boundaries and cores. *Organization studies* 26(1): 37-61.
- Mackintosh JP (1962) The role of the Committee of Imperial Defence before 1914. *English historical review* 77(304): 490-503.
- Marsh PT (1999) *Bargaining on Europe: Britain and the first common market, 1860-1892*. New Haven, Connecticut: Yale University Press.
- Matthew HCG (ed) (1982) *The Gladstone diaries, with cabinet minutes and prime ministerial correspondence: volume seven, January 1869-June 1871*. Oxford: Oxford University Press.
- Mattli W and Woods N (eds) (2009) *The politics of global regulation*. Princeton, New Jersey: Princeton University Press.
- Moravcsik A (1997) Taking preferences seriously: a liberal theory of international politics. *International organisation* 51(4): 513-553.
- Morrison JA (2015) Shocking intellectual austerity: the role of ideas in the demise of the gold standard in Britain. *International organization* 70(1): 175-207.
- Müller-Pohl S (2013) *Working the nation state: submarine cable actors, cable transnationalism and the governance of the global media system, 1858-1914*, in Löhr I and Wenzlhuemer R (eds) (2013) *The nation state and beyond: governing globalisation processes in the nineteenth and early twentieth centuries*. Berlin: Springer, 101-123.
- Müller S (2016) *Wiring the world: the social and cultural creation of global telegraph networks*. New York: University of Columbia Press.
- Narizny K (2017) On systemic paradigms and domestic politics: a critique of the newest realism. *International security* 42(2): 155-190.

- Neilson K and Otte TG (2009) *The Permanent Under-Secretary for Foreign Affairs, 1854-1946*. London: Routledge.
- Osterhammel J (2014) *The transformation of the world: a global history of the nineteenth century*, tr Camiller P. Princeton, New Jersey: Princeton University Press.
- Otte TG (2013) *The Foreign Office mind: the making of British foreign policy, 1865-1914*. Cambridge: Cambridge University Press.
- Perry CR (1992) *The Victorian post office: the growth of a bureaucracy*. London: Royal Historical Society.
- Przeworski A and TeuneH (1970) *The logic of comparative social inquiry*. New York: John Wiley & Sons.
- Reinalda B (2009) *Routledge history of international organisations from 1815 to the present day*, London: Routledge.
- Ripsman N, Taliaferro JW and Lobell SE (2016) *Neoclassical realist theory of international politics*. Oxford: Oxford University Press.
- Rueschemeyer D (2003) Can one or a few cases yield theoretical gains?, in Mahoney J and Rueschemeyer D (eds) (2003) *Comparative analysis in the social sciences*, Cambridge: Cambridge University Press, 305-336.
- Stone RW (2011) *Controlling institutions: international organisations and the global economy*. Cambridge: Cambridge University Press.
- Thompson, JD (1967) *Organisations in action*. New York: McGraw-Hill.
- Walter A (2016) Open economy politics and international security dynamics: explaining international cooperation in financial crises. *European journal of international relations* 22(2): 289-312.
- Waltz KN (1979) *Theory of international politics*. Reading, Massachusetts: Addison-Wesley.
- Wendt A (1999) *Social theory of international politics*. Cambridge: Cambridge University Press.
- Wenzlhuemer R (2013) *Connecting the nineteenth-century world: the telegraph and globalisation*. Cambridge: Cambridge University Press.
- Winseck DR and Pike RM (2007) *Communication and empire: media, markets, and globalisation, 1860-1930*. Durham, North Carolina: Duke University Press.
- Young O (1989) The politics of international regime formation: managing natural resources and the environment. *International organization* 43 (3): 349-375.
- Young O (1991) Political leadership and regime formation: on the development of institutions in international society. *International organization* 45(3): 281-308.
- Zürn M, (2018) *A theory of global governance: authority, legitimacy & contestation*, Oxford: Oxford University Press.