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Of Codes and Coda: Meaning in Telegraph Messages, circa 1850-1920

Deep Kanta Lahiri Choudhury*

Abstract: *»Von Codes und Coda: Bedeutung in Telegrammen, circa 1850-1920*«. This paper examines the telegram and its impact upon meaning and language, including Indian nationalist strategies subverting imperial control. After 1860, the British Indian Empire emerged as a crucial strategic element in the telegraph network of the globe. It included countries outside present-day India and the larger sphere of 'informal empire.' The paper uses the terms India and the Indian Empire in this broader sense. Changes in time and shortening of distance, allowed messages to be sent and received rapidly but permitted multiple interpretations of what telegrams meant. It was a world of electronic communication where codes and ciphers and mistaken meanings were recurrent: a world of shadowy meanings. This paper analyses the technological and interpretative dimensions of this asymmetrical world of transnational electronic communication flows.

Keywords: Agency House, anxiety, authentic, Bengali, British Empire, British Indian Empire, character, ciphers, codes, communication, context, control, distance, error, imperial, imperialism, India, Indian business, information, interpretation, language, meaning, message, misinterpretation, nationalist, networks, pronounceability, Reuters, sacred, science, secrecy, sedition, signallers, signals, space, subversion, system, technology, telegram, telegraph, telegraphy, time, translation, transnational.

Introduction

Over the period 1860 to 1900, the British Indian Empire emerged as a crucial strategic and commercial factor in the telegraph network of the world – the first global electronic communication network. The British Indian Empire included present-day Myanmar, Sri Lanka, Bangladesh, Pakistan, and parts of Iran and Afghanistan. It also included the broader sphere of British Indian informal empire in the Persian Gulf, southern Arabia, the Indian Ocean and the Bay of Bengal. Three quarters of the total inhabitants of the British Empire including Britain lived in India.¹

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Daniel R. Headrick, Tentacles of Progress: Technology Transfer in the Age of Imperialism, 1850-1940 (New York: Oxford University Press, 1988), 14.

This paper uses the terms India and the Indian Empire in this larger sense. Not only did India emerge as an important strategic element in the imperial and world telegraph network but it also became a strategic juncture for the privately owned submarine cable telegraph system servicing the entire world. The imperial imperative after the mutinies and uprisings of 1857 was to connect Britain and India. The Suez Canal further emphasised the strategic concentration on this region. This was reinforced through the conquest of Egypt in the 1880s. India was a base for further British imperial involvement, expansion and penetration to the west and the east of the sub-continent. The need to protect lines of telegraph communication saw British India's involvement along the coast of southern Persia in the west, and, east into Myanmar. India was also an important stage in the progress of lines towards Australasia. The importance of India in imperial telegraph communications cannot be underestimated. It was geographically crucial, strategically vital, and an important source of labour and finance.

Given the strategic importance of this region in the imperial communication system it becomes an important aspect that needs to be studied not only as a part of the imperial network but also as a significant case study throwing light on the telegraph system of the world. On a global scale, Indian telegraphy provided the means to maintain communication outposts and influence beyond the frontiers of formal empire. India was involved through the telegraphs in southern Persia, southern Arabia, Burma, and South East Asia. Indian resources were invested outside India during this period while Indian revenues subsidised trans-Indian traffic. After 1860, India and telegraphy became important launching pads for the extension of informal empire and provided a context within which a variety of new interests and wealth both intellectual and material emerged. This is the reason for choosing to study the telecommunication network of the nineteenth century using examples from India.

This paper addresses this imperial anxiety over control, meaning, and authenticity of information in the first electronic communication system of the world, using India in the larger sense as a case study. It approaches these issues from several different dimensions. First, and most fundamentally, it discusses the often obscured role of the telegraph signaller as a translator and transmitter of information within the telegraph network. Secondly, it discusses the problems facing telegraph technology as it transmitted information. Finally, it examines the issue of codes and what they meant to the intelligibility of telegraph messages during the period 1860 to 1920. The issue of routes and communication occupied centre-stage of many of the conflicts and crises after 1860. Even before the start of the First World War, international Telegraph Conferences met to decide on the security of the telegraph cables, lines and messages, and code in the event of a war between European imperial powers. Telegraph lines and cables were predictably the first casualties of war. The German wireless chain of stations, the "German chain," was much more developed than that of

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the British Empire. With so much of energy invested in the telegraph empire in terms of money and personnel, Britain could not switch quickly to other quicker and more reliable communication industries. The paper does not, however, address the issues of communications during the War but concentrates on the period 1860 to 1920 to emphasise certain underlying continuities which prevailed throughout the telegraph age.

Explaining and Translating Telegraph Communications

The first electronic communication system changed the way the world was viewed in the nineteenth century. The telegraph system was a crucial element in the constitution of the modern world, or, the beginnings of the world that we know today. From the very beginning, telegraphy was fraught with anxiety.²Morse sent his first telegram from Washington to Baltimore in the United States on 24 May 1844. Punched on a paper tape, Morse deciphered it at the Baltimore telegraph station to read, "[w]hat hath God wrought? [*sic*]" This momentous scientific and technological event changed the face of the world. Morse's quotation and his allusion towards divine predetermination behind scientific and technological progress was a recurrent theme of modernist discourse of the nineteenth century.

The arrival of the first successful telegram sent by Morse concluded with a question mark, and not an exclamation as it is in the Book of Common Prayer: 23... 'What hath God wrought!' 24 Behold, the people shall rise up as a great lion, and lift himself as a young lion: he shall not lie down until he eat of the prey, and drink the blood of the slain.³ This paper argues that Morse's anxious ending for his telegram, an anxiety about the disappearance of effective communication and of the message not reaching continued throughout the telegraph age.

Europeans and Indians made some significant attempts to diffuse and disseminate knowledge of the railway and the telegraph in the Indian public sphere before 1857. The argument about Christian Science and Orientalism needs also to be more flexibly framed to incorporate changes in political and intellectual thought and practice after 1835.⁴ Indians did not just receive a

² Cf. D. K. Lahiri Choudhury, "The Sinews of Panic and the Nerves of Empire: the Imagined State's Entanglement with Information Panic, India, c. 1880-1912," *Modern Asian Studies* 38, no. 4 (2004): 965-1002.

³ The Book of Common Prayer and Administration of the Sacraments, and other Rites and Ceremonies of the Church according to the Use of the Church of England together with the Psalter or Psalms of David, Pointed as they are to be Sung or Said in Churches, (Oxford: John Baskett, 1721), [The Fourth Book of Moses: Numbers] Balak's Sacri-

fice/Balaam blesses Israel, Number XXII, Verses 23 & 24.

⁴ S. Sivasundaram, "A Christian Benares': Orientalism, Science and the Serampore Mission of Bengal," *Indian Economic and Social History Review* 44, no. 2 (2007): 111-45, espe-

proselytising science seamlessly, but engaged in debate and differed from European writers by claiming a better understanding of the requirements of the indigenous public and the vernacular languages. Writers like Kalidas Maitra of Srirampur, desacralised and reconstituted science, even to the extent of resacralising science according to ancient Hindu texts.⁵

Kalidas Maitra, writing the first Bengali book on telegraphy in 1855,⁶ contested essays in Bengali by Europeans such as Reverend Mack. Maitra, in his book claimed that, though authors like M. Townshend, J. Robinson and Reverend J. Mack published articles on electricity and chemistry in *Tattobodhini*, *Bibidhartha Sangraha* and *Satyapradip patrikas*, his book was the first in Bengali or Sanskrit to cover the whole subject of electricity. He wrote that not only was his the first comprehensive book on telegraphy and electricity but because of his familiarity with the Bengali language and the customs of the people his should be the accepted textbook.⁷

Maitra desacralised and reconstituted science, even to the point of resacralising science according to ancient Hindu texts. Starting from the first principles of magnetism and chemical reaction, his book acts as a guide to chemical experiments using household goods. His was a curious combination of early nationalist egotism and conservative radicalism. Maitra attempted to prove that ancient Indians used steam power.⁸ Raja Shallya, in one of the ancient texts, goes to the master-mechanic of the Gods, Moydanab, who gives him the *Souvyantra* to destroy the *Yadu kula* (Lord Krishna's clan). This contraption could travel in water, air, and, land, and had a tail of smoke. Obviously, to Maitra, it was a steam-powered machine, and he quoted the relevant lines in proof, of which the last two are: *Kacchidbhoumo kacchidyomni girimuthi jale kacchit*, *Alatchakrabat bhramyat soubhong taddurabsthitang*. [Sometimes on land sometimes in air, on tops of mountains in water sometimes, like a circle of fire travelling the *Soubhya* rests there].⁹ Indians did not just receive a proselytising science seamlessly but engaged in debate and differed from European writers

⁹ Ibid., 4-5.

cially his work on Reverend Mack; see also M.S. Dodson, "Re-presented for the Pandits: James Ballantyne, 'Useful knowledge,' and Sanskrit Scholarship in Benares College during the Mid-nineteenth Century," *Modern Asian Studies* 36 (2002): 257-98.

⁵ D. K. Lahiri Choudhury, "The Telegraph, Censorship, and 'Clemency': Canning during 1857," *Contemporary Perspectives: History and Sociology of South Asia*, 3, no. 1 (2009): 34-54, esp. 35-6.

 ⁶ Kalidas Maitra, *Electric Telegraph ba taritbartabaha prakaran* (Srirampur: J. H. Peters, 1855).
⁷ N. 1

⁷ Ibid.

⁸ Kalidas Maitra, Vaspiyakal o Bharatiya Railway: The Steam Engine and the East India Railway containing a History of India, with a Chronological Table of the Indian Princes, from Judister down to the Present Time with a Description of the Places and their Histories through which the Railway Passes, with a Coloured Map and Many Illustrations (Srirampur: J. H. Peters, 1855).

by claiming a better understanding both of indigenous public need and of Bengali and Sanskrit. This quasi-religious counter-rhetoric both obscured and emphasised components of interpretation involved in the transmission of a telegram.

Maitra revealed a fundamental truth in his book on electric telegraphy. Dotsand-dashes sent using electric energy had no necessary connection to what they signified.¹⁰ He wrote, "Sanket aicchik janiben....atabata engraji akshare jeiroop sambad asiya thake tadroop bangala ki parasya prabhriti bhashay sambad asite pare" (Know that signals are arbitrary...therefore similar to how information arrives in the English alphabet, news can come in Bengali or Persian or other languages [own translation]).¹¹ Both the signifier and the signified co-existed in arbitrary though self-consistent systems, that is, dots-and-dashes existed with their system of differences and could be used to convey practically any information in any language based on a system of internal differentiation. Maitra provided the skeleton outline of systems of signalling Hindustani, Persian, and Bengali alphabets alongside the English one.¹² Maitra called telegraph stations addas or, ironically for us, "chatting spaces."¹³

Signals, Signallers, Codes, and Language

W. B. O'Shaughnessy, pioneer in telegraphy, confessed to the "anxiety of mind arising from introducing a new art and craft among many hundreds of people."¹⁴ The evolution of a cryptic, increasingly condensed language was as much a fiscal and societal expedient in order to pay less and communicate more, as it was a reflection of the changing metre and perception of time. The basic strategy of dropping articles, verbs, and other explanatory markers in everyday communication is an accepted element of language practice today. This was as much an understated trend from the late eighteenth century as it was an act of conscious self-fashioning.

One of the early arguments was over what a telegraph message should be named, an argument impossible to understand today. The solution lay in the very nature of the message itself. The erudite and self-conscious exchange between two Cambridge scholars through the pages of the *Times* over the "telegram" versus "telegrapheme," and the question of which was better

¹⁰ Maitra, *Electric Telegraph*, 135-149.

¹¹ Ibid.,142, 146.

¹² Ibid., 141-145, passim.

¹³ Ibid., 120-131.

¹⁴ V/24/4282. First Report for 1855-56, no.1, from O'Shaughnessy, Superintendent, Telegraphs, to C. Beadon, Secretary, Home Department, Government of India, dt. 9 February 1856, enclosing the report for 1856. The British Library, Oriental and India Office Collections, London [henceforth OIOC].

Greek¹⁵ ended swiftly. Less noticeably but more persistently, the "telegramme" had quite wide currency in contest with the "telegram." "Wire" was the easy and evocative way out.

The telegraph impacted significantly on language in a way that raised problems of context and meaning. Saving telegrams, repeating them, the elaborate records of error, institutions and offices established to scrutinise departmental functions, all concentrated on tracking down the source of error in a message. Yet the process of disciplining the signaller and training the public was one achieved over time.

A "character book" for signallers in which "all points throwing light, favourable or otherwise, on the character of the person, *however known*, would be recorded." A character roll for the telegraph establishment was drawn up with the following list of columns filled up:

1) Knowledge of the language of the country; 2) Character as regards temper with the natives; 3) sobriety; 4) any occasion for suspecting the persons honesty; 5) special knowledge possessed, e.g., ability to signal and receive by Morse or Needle; 6) knowledge of electrical science; 7) skill as a mechanic; 8) natural ingenuity; 9) amount and quality of education; 10) health as affecting efficiency; 11) peculiarities either temperamental or physical.

Therefore, a wide range of issues was dealt with in the process of disciplining and manufacturing the right kind of signaller.

A hypothetical form was filled out as an example: "John Smith, East Indian, five feet four inches, dark hair and eyes, prominent teeth, sallow complexion, a scar on the right cheek, speaks slowly, and has a stooping gait." Against unfavourable facts were noted "intemperate habits, no knowledge of electrical science, indifferent health," and the fact that the hypothetical signaller was "very eccentric."¹⁶ Disciplining the signaller involved policing his morals, movement, his self, and his space. This discourse deployed thinly disguised racial categories as the term "East Indian" indicates. It is important to remember that after 1860 people of mixed ethnic origins staffed much of the junior ranks of the railway and the telegraph in the Indian Empire.¹⁷

Mistakes in signalling were compounded by the cost of the telegram being fixed according to words, which saw brevity rise to absurd heights. The more

¹⁵ The Telegram and Telegrapheme Controversy, as Carried on in a Friendly Correspondence between A, C. and H., both MA's of Trinity College, Cambridge, London: Rivingtons, 1858 (Of course, the exchange was anything but friendly); Tracts: Cambridge 1848 to 1885. Trinity College Library, Trinity College, Cambridge University [henceforth TCL]. I thank the Library, Trinity College, and Dr. A. R. Cox for help with accessing the Tracts.

¹⁶ V/24/4284, Annual Report for 1861-2, Appendix. General Branch Circular, No.96 (3/4), 25 February 1861. OIOC.

¹⁷ D. K. Lahiri Choudhury, "India's First Virtual Community and the Telegraph General Strike of 1908," in *Uncovering Labour in Information Revolutions*, ed. A. Blok and G. Downey (Cambridge: Cambridge University Press 2003), 45-71.

compact and obscure the message the less chance the signaller had of guessing at what it might logically intend to say. Telegraph guides emphasised, "it is of extreme importance to study the utmost brevity compatible with clearness," giving examples of how messages should be written and the degree of brevity that was acceptable without the loss of intelligibility.¹⁸ The basic transmission template was the Morse code but what was transmitted through it could itself be in code. Dictionaries and encyclopaedia of code were numerous since the early days of the semaphore and Claude Chappe. O'Shaughnessy originally designed his own code for the basic transmission template and claimed that it was more logical than those designed by Sir William Fothergill Cooke and Sir Charles Wheatstone.

However, by 1850, O'Shaughnessy admitted the efficacy of the Morse code, which was being universally adopted. The fixing of the standard code of transmission did not mean that codification stopped. From the Agency Houses to the Government, everyone brought to the Morse their own ciphers and codes. Thus, messages were doubly encoded: first, in the privately agreed upon cipher and then in Morse.

A major issue between the public and the state was the use of these ciphers, "generally composed of the names of heathen gods, ancient and modern cities, abstract qualities, etc.," which greatly multiplied the chances of error. The telegraph initially banned business codes and messages composed of words of "secret meaning" were strictly against international rules. They were later accepted "on toleration" after 1868. Governments explained to the public that the code message became so obscure that it lost all context of meaning for the signaller. How did one to transmit correctly, what one was did not understand at all?

Perhaps, that was precisely what the public intended. However, signallers intensely disliked such obscurity because they were fined for errors in transmission of messages. Though it was possible to trace an error down to the specific exchange between two signallers, it was impossible to find out which of the two had caused it. As a result, both of them were fined. The Department communicated to the Government the "difficulty and consequent distaste" that the signallers experienced for the transmission of cipher messages. The Director General wrote,

I refer to the class of cypher messages in which ordinary English words with concealed meanings are used...[since] the fine for the error is shared between them [two signallers], it will be understood how sufficient a cause for wrangling and delay will arise during the transmission of such messages. Should the receiving signaller believe that an incorrect word has been sent to him – for example, 'dolt', 'spink', 'Crewe' – all three occurred in one message from

¹⁸ A. Brasher, *Telegraph to India: Suggestions to Senders of Messages* (London: Edward Stanford, 1870), Scientific Tracts 1-13, 7-9. OIOC.

a Calcutta firm, he insists that the sender is wrong while the sender insists that these are the words. The message delays others or is itself delayed.¹⁹

Signallers argued with the Government about whose fault it was when a message contained errors and the Government argued with the public about what constituted a correct telegram. The Department castigated "indiscreet condensation habitually practised" by the senders of messages. Such "contracted" telegrams were unintelligible to none but persons between whom they passed. As a result, "Office Assistants lose that control over correct transmission which the context of an ordinary message affords them."²⁰ Telegraph guides suggested that "the more intelligible [a message was] to the signaller the less chance of mistake." They advised the use of words common to German, French, English or Italian, for example, words such as paper, maximum, sentence, statistics, moment, seraphic, communication.²¹ Since the Department gave compensation to the public for mistakes and errors in telegrams, the disputes between the two were frequent and acrimonious.

The anxiety of authorial control, authenticity, and secrecy remained at the heart of telegraphic practice though increasing automation led to the erasure of the human signaller. Yet up to at least 1920, they were the primary means of operating the system and enjoyed a privileged position. In the period 1855 to 1870 they were the most important element in not only transmitting the message but at the same time deciphering it. This interpretative role has been little noticed except within terms of the institutional narrative of "the correction of errors." What constituted correct telegraphic practice was disputed between the public, the signaller, and the Telegraph Department.

Signallers quarrelled between themselves because checks on the time taken to transmit messages and fines for errors in messages made them competitors and enemies. Lines were "switched over" without adequate notice, for example, when, after receiving a message from Benares, the Allahabad operator, without notice to Benares, "joined over" or placed Benares in direct or "through" communication with Kanpur; the Benares signaller sent more messages believing it to be Allahabad while Kanpur, receiving no notice of receipt of messages from Benares, did not record them. O'Shaughnessy reported that the Head Assistant at Sepree, a relatively unimportant node in the system, halted all correspondence between Calcutta and Bombay. A signaller, a university graduate, "being drunk, incapable of doing duty, and mischievously determined to prevent any of the signallers from performing theirs." The whole point of the first electronic communication network was to keep information flowing through its lines and any sudden breakdowns could make relatively

¹⁹ Annual Report of the Telegraph Department 1861-2, 16. The National Library, Kolkata [henceforth NL].

²⁰ V/2/4284. Annual Report of the Telegraph Department 1861-2, 15. OIOC

²¹ Brasher, *Telegraph to India*, 9. OIOC.

obscure places assume tremendous importance in the eyes of officials. O'Shaughnessy complained of the difficulty in procuring the "right quality of operators."²²

The Government wrote to the various Provincial Chambers of Commerce in 1861 soliciting their "general opinion as to the efficiency of the Electric Telegraph for commercial purposes."²³ Their opinion was harsh:

a merchant incurs a grave responsibility who acts upon any Telegram the purport of which does not tally with his preconceived notions, or, in other words, if a message reports an unexpected high or low rate of prices, it is probably a blunder of the Telegraph.²⁴

Thus, the general opinion seems to have been that the telegraph had to be tested against intelligibility of meaning and context. A common practice employed by European agencies was "packing". The fact that were messages charged on a minimum slab rate of twenty words allowed the sending of a message that was, in fact, many messages.²⁵ These agencies operated in West Asia and India until the end of the 1870s.²⁶ Reuter's also employed this method in transmitting their bulletins.

Indigenous merchants were cited as better correspondents than European firms because they did not hesitate to use devices and repetitions when it came to numbers, a very common source of errors. For example, they often repeated a number in terms of its multiple, thus, "four thousand or twice two thousand," thereby eliminating all possible misreading. The bulk of errors occurred in the transmission of names and addresses, and Indians,

under the impression ...that greater attention was paid to the correct and proper transmission of messages addressed to Europeans...several native senders were in the habit of adopting familiar English names such as Dr Green, Peter, Grant, John, etc, under which to send their messages.²⁷

There are two issues involved: first, mistakes arising out of codes that were added onto the basic Morse template, the cipher telegrams; secondly, mistakes that occurred in reading and transmitting in the Morse code itself and the repetition of telegrams at different telegraph stations multiplied the potential for error. Captain Matthews, telegraphing from Bombay to his agent Sheo Gopaul

²² V/24/4282. First Report, p.59. OIOC.

²³ V/2/4283. Annual Report for 1860-1, Appendix B. From W. Grey, Secretary, Home Department, Government of India, to the Secretary, Bengal Chamber of Commerce, dt. 12 June 1861. Similar letters were addressed to the other Chambers including Bombay and Madras Chambers of Commerce. OIOC.

²⁴ Ibid. From H. W. J. Wood, Secretary, Bengal Chamber of Commerce, to Secretary, Home Department, Government of India, with enclosures, dt. 14 August 1861. OIOC

²⁵ V/24/4289. Administrative Reports of the Indo-European Telegraph Department, 1872-3 to 1894-5. Report for 1872-3, 3. OIOC.

²⁶ V/24/4289. Report for 1872-3, 7. OIOC.

²⁷ V/2/4283. Annual Report for 1860-1, 14. OIOC.

Dass in Indore, telegraphed, "Sell all, and do not receive the horses. I am sending four thousand rupees," but, on arrival at its destination, the message had changed to "Sell all, and do not reserve the horses, I am sending fourteen thousand rupees".28

It is the interpretative skill of the signaller, his hermeneutic power over the telegraph's language and transmission of information yet his powerlessness in overcoming the anonymity and erasure of his individual identity imposed by the system, which is relevant. He was the recorder of signs and the reader of portents. At the same time he was invisible, a mere means whereby electricity spoke. His very anonymity convinced the public of the confidentiality of the telegraph. Yet this was achieved over time and through a process of discipline. O'Shaughnessy noted that the "process of receiving a telegraphic message is one in its very nature liable to the misinterpretation of what is seen or heard."29

Disciplining the bureaucracy and the public as to the correct degree of brevity to be used was a difficult task for the Telegraph Department. During the 1860s "real" words were used to mean something other than their dictionary meaning. However, the dictionary code was supplanted by a code that used completely artificial words. Various codes existed before the invention of the telegraph. Nevertheless, by the 1920s, it was stated that the

compilation of codes involves more than the random selection of letters or syllables and the assignment to them of particular meanings. The successful compiler must be familiar with telegraphic practice; he must know wherein lie difficulty in transmission and the danger of mutilation.³⁰

The double code, the basic Morse code and the cipher code, and their proximate yet opposite positions led to more than 3000 codes compiled. Originally, the rule of pronounceability was adopted towards codes but the number of easily prounceable words being exhausted, "barbaric combinations were presented." In 1920 an international conference met to discuss, among other things, the problems of transmitting words like "NHAZBCLYOZ" and "BYMGAVRASMB." Competition between operating companies broke down any possibility of strict enforcement of the "pronounceability rule," which was very hard to apply in the first place in view of the possibilities of eight different languages (German, English, French, Spanish, Italian, Dutch, Portuguese and Latin), the lack of linguistic ability or knowledge of telegraph clerks, and particularly the lack of a precise definition of the term "pronounceability."³¹

²⁸ V/2/4284. Annual Report 1861-2, Ibid. Appendix J. General Branch Circular No. 110. From Lieutenant C. Douglas, to all offices, dt. 1 July 1861. OIOC.

²⁹ V/24/4282, Annual Report for 1859-1860, 12. OIOC.

³⁰ Irvin Stewart, "The International Telegraph Conference of Brussels and the Problem of Code Language," American Journal of International Law, 23, no. 2 (April 1929): 293. ³¹ Ibid.

The Government also used ciphers and codes. Not only were signallers unaware of the meaning of these codes but sometimes the concerned Government officials were given code names they themselves were unaware of. The British military used a system of telegraph code addresses during the Boer war and in Egypt that bordered on the extreme: Major General (then Colonel) Thorneycroft was unhappily "Unbuttoned", the Chaplain General was predictably "Meekness," while General Clery, when Chief of Staff to Wolseley in Egypt, discovered that his label was "Castration." When Clery's objections were conveyed to the Duke of Cambridge, then Commander-in-Chief, the Duke is said to have replied, "[q]uite right too, so would I."³²

The state and Indian nationalists along with business houses used codes. These could lead to impossible issues of interpretation and translation. When the Government Prosecutor in Bengal declared a statement describing the Secretary of State, Viscount Morley, as a cunning jackal (*dhurtya srigal*) to be seditious the nationalist Indian defence held it to be a traditional Indian compliment. These overlaps and contestations gained in frequency rather than decrease as the telegraph age progressed and automation and duplication of lines made telegrams more affordable to the larger public.

Conclusion

Telegraphy, more than anything else, ensured the symbolic presence of the British imperialism. It was the supreme and tangible celebration of the scientific empire that Britain promised – a physical reminder of the apogee of rationalism, technology and science that *Pax Britannica* claimed to represent. Telegraph technology was political in every sense of the term: it was the meaning and content of the British Empire.

The perfection of technological practice and the identification and removal of error concerned telegraphy after 1860. The telegraphs were constantly improved towards a perfectly working state, which was an imagined state, and were constantly disrupted in reality.³³ The telegraph has crucial political dimensions and formed the basis of an intricate and inherently fragile world order based on issues of sovereignty, apportioning of rates and tariffs, who would build and work the telegraph, and how it could be rendered safe from interruption. India therefore, becomes extremely important in understanding the imperial as well as transnational anxieties about meaning, translation, authenticity of information, and subversion. The fallibility of technology reveals the interface between the social and the technological and the fragility at the moment of

³² Field Marshall Lord Birdwood, Khaki and Gown: An Autobiography (London and Melbourne: Ward, Lock and Co., 1941),103.

³³ Choudhury, "The Sinews of Panic."

transmission. Unlike the postal system, for the first time a message was not physically present but a translation and transmission bringing issues of authenticity, time, evidence and credibility into focus. With increasing automation, the signallers were pushed to their limits and general strikes broke out in different parts of the electronic system, temporarily paralysing governance and business.³⁴ This can be seen in the case of the telegraph general strike of 1908 in India. The experience of India is significant because it was also a question of *imperium in imperio*: the India Office was the only Department of the British Government with an army and an independent budget – an independent player in imperial politics, free from Parliamentary scrutiny until John Morley became Secretary of State for India in the 1900s. The Indian case illustrates the complex experience of technological modernity. The gap in meaning and context that the telegraph system grappled with at different levels was a feature of the endless waltz it was trapped into from inception. If the post office co-existed with a particular political economy, the telegraph system revolutionised it.

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³⁴ See D. K. Lahiri Choudhury, "Treason of the Clerks: Sedition and Representation in the Telegraph General Strike of 1908," in *Beyond Representation: Colonial and Postcolonial Constructions of Indian Identity*, ed. C. Bates (Delhi: Oxford University Press, 2006), 300-321; D. K. Lahiri Choudhury, "India's First Virtual Community."; also see G. Downey, *Telegraph Messenger Boys: Labor, Technology, and Geography*, 1850-1950 (New York: Routledge, 2002). For an analysis of the almost contemporary telegraph general strike in the United States see G. J. Downey, *Telegraph Messenger Boys*.

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