Communication and Contracting: A Link Between Business and Social History

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The relationship between business structures and their social and cultural setting has long interested economic historians. North [16] and Williamson [24] place information concerns at the center of their analyses of organizations and institutions. According to North, institutional arrangements, which consist of formal and informal constraints (respectively laws and behavioral codes), represent communicating infrastructures that influence transaction costs. Williamson explores how economic actors arrange, monitor, and enforce contracts in the midst of asymmetrical information and uncertainty. These agreements are shaped by the degree of asset specificity, the frequency of exchange, and what he calls "atmosphere" (the degree of prevailing trust). Atmosphere can have an important transaction cost reducing function, especially when *ex post* contingencies arise and induce sequential adjustments.

Contracts are therefore not always one off deals. Instead, they may represent a relationship that sustains ongoing collaborative modification. Indeed, game theory reveals that escape from the Prisoner's Dilemma depends upon co-operation [15]. Players will adopt a defection strategy in a single period game because they do not trust each other, but in a repeated game, conditional co-operation can become the equilibrium position if both parties envision an indefinite time horizon and if the discount rate is low enough to prevent defection. What is left unexplored, however, is how players communicate to forge an initial co-operative contract and signal that they observe an indefinite time horizon.

Building on foundations provided by Williamson and North, this paper uses the notion of "contracting capability" to examine the relationship between contracting and communicating. Using evidence from nineteenth century Britain's service sector, it aims to build a closer link between business and social history by showing explicitly how relevant institutions provided an elaborate communicating infrastructure that reduced transaction costs. So favored, businessmen in the shipping industry won international competitive advantages using co-operative network based contractual arrangements. The findings provide an alternative perspective from which to consider entrepreneurial performance, family enterprise, social mobility, and organizational innovation.

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Contracting Capability and Culture

I define contracting capability as ingenuity in arranging co-operative agreements by communicating in implicit and explicit ways. It represents the capacity to establish presence in an incipient bargaining flow, to forge with others the bonds of trust needed to make an initial agreement, and to exhibit creativity in designing the actual contract. In a multiple time period, contracting capability also encompasses the ability to sustain co-operation by making sequential adjustments to the initial agreement and to win a reputation as a reliable contractor. A favorable reputation is crucial because it conveys assurances of trust to others who lack first hand knowledge about an entrepreneur. Moreover, it represents a valuable intangible asset, built up by long-term investment, that is important in determining future business possibilities and thus deters opportunism.

Contracting capability complements the notion of corporate capability, or the firm's capacity to co-ordinate action [3]. Indeed, some observers argue that within the firm economic actors "submit to the necessities of co-operative systems" rather than to powers of fiat [1, p. 184]. Chandler's point of view directs attention inside the firm to show how the development of new hierarchical structures and information systems lowered transaction costs and made it possible to internalize functions. However, his perspective obscures how contracts between principals and agents underpin corporate capabilities, and assigns subsidiarily roles to corporate culture, incentives, and leadership. Chandler's emphasis on structure and formal systems also conveys the impression that the firm's boundary is distinct. The conception of the firm as a co-operative contracting system makes it possible to analyze inter-organizational agreements. From this angle the firm is seen as a nexus of contracts, some of which involve inside constituents and other agreements that extend beyond what is a penetratable frontier. Communication sustains all of these contracts.

Communication takes a variety of forms depending on the extent of inter-personal knowledge and the physical proximity of potential bargainers, both of which determine the degree of information asymmetry. Information can be transmitted explicitly by direct face to face conversation, but implicit emissions may have greater impact. Informal signals derived from how a party behaves reveal underlying motives, while common affiliation may reflect shared experience and the observance of similar values. In a multiple time period, reputation is a vital implicit transmission. Culture shapes the scope and imagery of communication.

Characterizations of culture focus on values and cognitive aspects. Values shape expectations and affect entrepreneurial performance [19, 23], or they sustain to varying degrees "spontaneous co-operation" and therefore determine the cost of using legal sanctions [6, p. 45] Cognitive aspects include "the rules of the game" and conditioned patterns of thought [8, 16]. Here, past experience provides a map which reveals those actions that worked well in specific circumstances and those that did not. This knowledge collapses economic actors' decision trees and reduces costs by speeding up strategic processes. However, it can also cause businessmen to overlook alternatives that may be effective when different circumstances arise. We can extend the cognitive approach to include models, incentive structures, and institutional precedents that legitimatize or discredit certain contractual forms. Rules, conditioned thought, and models establish parameters for discussion. A vital, though difficult, entrepreneurial function is to exert a creative influence upon these constraints in order to accommodate new contractual designs and sequential modification.

Values and the cognitive aspects of culture delineate the configuration of contracting coalitions. Social, occupational, geographic, and ethnic affiliation shape the range of a culture. An entrepreneur's capacity to operate in different cultural contexts is determined by his capacity to learn about their accompanying infrastructures.

Communication Infrastructure and the Initial Contract

Nineteenth century Britain's commercial communities had lavish contracting infrastructures [2]. Interconnected communication lines following business, political, religious, and family ties helped economic actors to gain presence. Shipping exchanges and other bargaining fora, along with social venues, facilitated communication aimed at gaining trust and building reputation. The density of these channels also raised powerful deterrence to opportunism. Residences and chattels acted as media for displaying position. Titles, posts in commercial organizations, and the chain of public offices represented reputational gradients which in part determined the power of one's signals.

These infrastructures thrived in an economic environment that was munificent and showed relatively little turbulence. Reflecting a gradual pace of development few infrastructures were dislocated by profound shifts in the regional economic base or by waves of immigration [17, p. 61-3, for contrast see 9]. The City and other centers became increasingly cosmopolitan as they steadily assimilated newcomers [5]. New information technology extended the range of business communication and, when used in tandem with flexible contractual models inherited from Britain's long commercial past, made contractors' behavior more transparent. These local contracting arenas helped fledgling entrepreneurs, who often lacked distinct reputations and a large set of resources with which to arrange deals, to overcome the formidable hurdle of forging their first agreement.

In terms of establishing presence and winning trust, the first two elements of contracting capability, local channels lowered the time costs that newcomers incurred when they communicated directly or used intermediary links to make their first contract. Many shipowners, including James MacKay, T. Ismay, and Owen Philipps, relied on family contacts to secure employment positions that gave them the qualifications needed to strike out on their own or to take over their employer's enterprise [3]. Reflecting a wider trend observed by Rubinstein [19, p. 233], the sons of merchants frequently followed their father's footsteps and used the family business as a platform for embarking on careers as shipowners. Men who used these channels to contract with other figures came with a "familial" reputational guarantee. Unrelated intermediary figures often provided screening services and thereby helped entrants forge an initial contract with participants with whom they had not established direct bonds of trust. It was that vital intangible asset reputation that enabled the substantial merchants, shipbuilders, and established shipowners to help Cayzer, Currie, Furness, and many others to raise funds and make commercial contacts [3]. Intermediaries used their reputations to arrange direct contractual links between these agents and other principals, or to establish indirect links by contracting with each party separately and assuming the position of middleman within an incipient stream of transactions.

Walter Runciman's papers show intermediary processes unfolding [20]. Using family, local and church ties, newcomer W. Stephen gained Runciman's trust and thus won "reputation by association" with this prominent shipowner. Runciman introduced Stephen to local shipbuilder Doxford who, wishing to preserve a longstanding tie with Runciman, offered to finance Stephen's new ship on "easy terms." Runciman bought shares in Stephen's vessel and with this signal of confidence his other associates followed. Runciman's insurance broker, F.L. Harris, stated that he normally invested £1,000 in such ventures to secure the insurance business, but would double this amount because Stephen had the benefit of Runciman's advice. These overlapping personal and commercial ties deterred opportunism and provided the basic outline of the network based contractual framework that shipowners used so extensively.

The third element of contracting capability, showing creativity in designing agreements, refers to how entrants arranged three elements: the actual legal provisions, monitoring machinery, and a supporting culture [4]. Each of these elements involve interrelated costs. Thus, elaborate monitoring mechanisms impose heavy costs that can be reduced if principals mobilize values to deter opportunism. Yet, manipulating culture involves time costs that can be reduced if the clauses of the agreement are rigorously specified. The overall relationship between costs and benefits arising from relying to different degrees on each element depends on the state of reporting technology and the cultural-legal context. In game theory terms, the contractor's ingenuity reflects how, by arranging the three elements within a set of specific environmental and interpersonal circumstances, he creates a payoff pattern which ensures that the gains from cooperation exceed those from defection and compels participants to signal that they observe a long term time horizon.

For shipowners, the network modeled on merchant practice was the chief framework for arranging contracts. The function of the network was to assemble the complementary assets, information, and capital needed to exploit a business opportunity when one person could not do so independently or sought to spread risk. Networks acted as preferential communication lines which in a multiple time period supported interpersonal learning, co-operation, and adaptive decision-making. Networking principles included the expectation that participants would grow together, reciprocate, and observe exclusiveness to protect other members from outside opportunists.

The network provided a flexible medium for configuring the three contractual elements [3]. Until the 1890s, when new tax laws and growing recognition changed attitudes to incorporation, most shipowners followed precedents set by merchant enterprise and used legal frameworks that exposed members to unlimited liability and restricted share transfers in order to evoke signals of commitment. This financial bond created interdependence between merchants, agents, shipbuilders, masters, and managers, all of whom benefitted from the project, and reinforced relationships of trust arising from family, church, and commercial ties of the type displayed by the Runciman-Stephen network. In addition to periodic financial reports, overlapping social and transactional links provided channels that were used for monitoring purposes.

For intrafirm contracts, owners again drew on the commercial community for a model, the apprentice merchant framework, which Liverpool shipowners legitimatized further by invoking the "improving" ethic of liberal non conformism [12, 14]. To build trust and firm cultures, the Booths and Holts recruited men from similar backgrounds, devoted personal attention to their training, and created compact working environments that supported interpersonal learning and indirect monitoring. These contracts provided performance based remuneration and implicitly included assurances of advancement to partnerships. Employees posted bonds that linked their futures to the firm. Thus, Harrisons tied J.W. Hughes by lending him funds to buy shares [13, p. 18]. Booths introduced a profit sharing plan which awarded staff base salaries plus a bonus that they were supposed to leave on deposit with the firm and withdraw only to buy "furniture, life assurance, or some other investment" [14, p. 164]. While the plan helped Booths to monitor some facets of their employees spending habits, more subtly it provided staff with some security against large expenditures linked to changes in their personal lives; for example, marriage and furnishings. Thus, the plan drew a stronger tie between family and firm and it was designed to shape employees' private decisions to parallel the firm's self-financing methods. Thus, shipowners created contractual symmetry to reinforce cognitive patterns. The highly personalized form of intra firm contracts conditioned behavior in ways that complemented networking activities.

To summarize thus far, Britain's port communities provided elaborate communicating infrastructures within which the family acted as both a crucial information gathering node and as the receptacle for what Victorians saw as the most valuable of all personal attributes: respectability. Nor did family necessarily limit expansion. In a multiple period context, enhancing this reputational base by rising in society helped to sustain growth by securing access to new pools of private capital and information. Communicating to build trust with figures in ever larger contracting arenas and displaying leadership by designing contracts with new constituents were vital entrepreneurial skills that shipowners used to build giant enterprises.

The Multiple Time Period and Serial Contracting

In a repeat gaming situation the scope of contracting expands as a dependable operator gains a wider individual reputation or, when he deals repeatedly with other men, a shared reputation which has the capacity to radiate joint signals of greater power than the sum of individual emissions. Over time businessmen also accumulate larger and more diverse resource sets and can thus extend the size and range of their co-operative deals. Learning effects enable contractors to exhibit greater inventiveness in designing agreements. These developments explain why some shipowners could build larger, more diversified enterprises especially the giant groups that emerged after 1910.

Over time, shipowners had to preserve network cohesion while contending with tensions that arose from expansion. They adjusted contracts sequentially in response to internal weakness and external shocks created by the speed, extent, and direction of growth. In game theoretic terms, they communicated continuously to ensure that mutual co-operation remained the equilibrium position for all members while endogenous and exogenous developments threatened to change the values within the payoff matrix.

Between 1870 and 1914, rapid growth in demand and technological change exposed opportunities for developing new services. For example, in the 1870s, China merchants demanded faster service, which Alfred Holt was reluctant to provide because it would raise his costs [12]. His agent, John Swire, recognized that

Holt's intransigence encouraged competition and threatened the basis of their network. Using statistical data Swire convinced his principal that both merchant and shipowner could benefit from faster ships; rapid passage would attract more than enough higher paying cargo to cover the additional expenses. Such communication enabled the Holt-Swire connection to endure for nearly a century.

All contractors recognized that informal discussion was needed to provide scope for *ex post* modifications. Some agreements, like one between British India and the Asiatic SN Co. even had built in adjustment parameters. However, when one contractor strayed beyond accepted bounds either formal or informal communication was required to preserve links. Thus, provisioner J. Kenleyside wrote to Runciman: "It is not only from direct remuneration that your orders are so valuable to me, but from the prestige given to our firm by having your confidence. This has been the means of putting a good deal of business our way" [20]. It is not known what prompted this letter but the invitation to request reciprocity or a concession in order to preserve the relationship rings clear.

When internal problems threatened network ties strong members often propped up weaker partners. To preserve one link shipowner Christopher Furness purchased ships that Alexander Stephen had built for a customer who defaulted. Furness reconfigured payoff patterns in a more radical fashion by acquiring a minority interest in Palmer's shipyard and by taking over Withy's firm when these builders lacked funds to undertake client specific investment by re-equipping their facilities to construct the larger vessels he required. These reformulated contracts displayed different gradients of financial and commercial interdependence. Acquisitions of suppliers, competitors, and agents usually occurred when some shock threatened established contracting links.

To prevent the resulting inter-organizational networks that were based on the holding company from becoming "in-grown," shipowners had to balance the necessary exclusiveness of the network with openness to outside stimuli. Furness did so by preserving contracting links with independent shipbuilders, including Stephen, over a thirty year period during which he developed ownership ties with six other yards. With access to so many channels he was able to use cost data and market prices to promote competitiveness, exchange design information, secure prompt delivery, and gain economies from standardization. As all parties continued to expand their capabilities and maintain co-operative balance, these multilateral relationships endured.

Shipowners also prevented their enterprises from becoming in grown by using consulting and employment contracts to accommodate new constituents, including technical experts whose specialized knowledge conferred upon them quasi rent appropriating capabilities. Shipowners manipulated a series of traditional incentive structures to mobilize cultural forces and offered very large monetary rewards to harness, for their own benefit, the independent contracting capabilities of these specialists. Shipowners did not behave in short sighted ways, such as reverting to explicit command, and thereby risk losing the benefits of specialists' knowledge. Instead, owners preserved a creative co-operative tension arising from differences in knowledge, common goals, and inter personal information.

Rapid growth and wide ranging diversification could threaten the cohesion of the inter organizational networks. In the 1920s, Lord Kylsant failed to win a balance between allowing affiliates to develop their interests and preserving overall operating coherence within his Royal Mail Group. Bounded rationality reduced the gains of co-operation while excessive debt undermined the inherent flexibility of the holding company structure, and the edifice collapsed in 1930 [10]. In contrast, Sir John Ellerman delegated monitoring and contracting functions over discrete parts of his empire to trusted subordinates and he ran most of his units free of debt to avoid gridlock [11]. The Furness Group consisted of three holding companies that acted as distinct contracting nodes [3]. Each unit used a different form of specialized knowledge to arrange deals and over time continuously developed its knowledge base. When a combination of internal opportunism and external shock threatened one of these nodes, the group sold its most vulnerable industrial units and preserved its co-operative reputation by controlling the resultant signals. By so doing, the enterprise reduced debt and achieved greater flexibility by reforming contracting links with suppliers [3].

When shipowners entered new contracting arenas beyond the frontiers of established trust, they often used their increasingly diverse assets to "nest" contracts, as Tsebelis [22] calls the tactic. Shipowners not only used the breadth of their business assets to provide deterrence, they also harnessed a third dimension depth using social and cultural affiliations. In this way, they structured the payoff pattern firmly in a mutual co-operation equilibrium.

Complementary social and business channels helped entrepreneurs to enter progressively larger bargaining arenas each with its own distinct contracting infrastructure. Many shipowners moved from local to regional contracting circles, and some reached national and international bargaining fora. Their decision to expand the range of their contracting activities was based on an assessment of the benefits, as reflected by improved access to information and resources, and the costs involved in establishing presence, winning trust, and arranging contracts [3]. For example, admission to London financial circles and government agencies helped to reduce environmental uncertainty by providing better information about financial conditions, improved access to government business, and the means to learn about and in some cases influence the course of official policy. Inchcape, Kylsant, Currie, and others successfully manipulated official concerns to their own advantage. However, to gain acceptance in these circles, shipowners had to acquire appropriate social assets, become familiar with new behavioral rules and communication methods, and learn about a new infrastructure and accepted contractual forms. Reflecting the strength of their collective contracting capabilities, shipowners were among the most socially and economically mobile occupational groups in early twentieth century Britain [3, 18].

Conclusion

This paper has analyzed communicating activities to build a more explicit link between business and social history. Far from being afflicted by irrational bias, cultural forces and social mobility in Britain could be complementary to business development. Nor was the nation's institutional fabric immutable or resistant to entrepreneurial activity; instead, it represented a rich communicating infrastructure that qualified operators could manipulate. Those who invested heavily in contracting capabilities used this infrastructure to accumulate some of the nation's largest fortunes and build some of its largest enterprises.

In shipping, big business was not hierarchical, but rather co-operative and alliance based. In this industry, the holding company was not a collusive device.

Instead, developed from merchant precedents it was a flexible inter-organizational network consisting of private channels that conveyed financial and operating information needed to support internal contracting and deals with "outside" parties.

The study shows how environmental and intra-firm factors interacted to support the British mercantile marine's rise to international prominence. The approach used here suggests how some variables might have changed and thereby contributed to its decline. World War I dislocated some information channels but more decisive changes and precipitous decline unfolded after 1945. Changes in technology and markets disturbed some existing information channels, while new tax laws and company legislation undermined the industry's financial base. More fundamentally, broader changes in expectations, the further democratization of British society, and the rise of new professionals dislocated shipowners' communication lines along with their contracting culture and its supporting infrastructure. As large-scale enterprise in the West restructures today, history can provide some insights concerning how social and cultural forces, as well as institutional precedents, can support different contractual frameworks.

References

1. Chester Barnard, *The Functions of the Executive* (Cambridge, Mass., 1958).
2. Bates Papers, National Maritime Museum, Greenwich, London [BAT].
3. Gordon Boyce, *Information, Mediation and Institutional Development: The Rise of Large-scale Enterprise in British Shipping, 1870-1919* (Manchester, 1995).
4. Ann Carlos and Stephen Nicholas, "Agency Problems in Early Chartered Companies: The Case of the Hudson's Bay Company," *Journal of Economic History*, 50 (1990), 853-75.
5. Youssef Cassis, "Bankers in English Society in the Late Nineteenth Century," *Economic History Review*, n.s. 38 (1985), 210-30.
6. Mark Casson and Howard Cox, "International Business Networks: Theory and History," *Business and Economic History*, Second Series, 22 (1993), 42-54.
7. Alfred D. Chandler, Jr, *Scale and Scope The Dynamics of Industrial Capitalism* (Cambridge, Mass., 1990).
8. J. Cremer, "Corporate Culture and Shared Knowledge," *Industrial and Corporate Change*, 2 (1993), 351-86.
9. R.F. Dalziel, Jr, *Enterprising Elite: The Boston Associates and the World They Made* (Cambridge, Mass., 1987).
10. P.N. Davies and A.M. Bourne, "Lord Kylsant and the Royal Mail," *Business History*, 14 (1972), 103-23.
11. Ellerman Lines Records, University of Glasgow,, Glasgow. UGD1311-4, 7, and 9.
12. F. E. Hyde, *Blue Funnel* (Liverpool, 1957).
13. F. E. Hyde, *Shipping Enterprise and Management* (Liverpool, 1967).
14. A.H. John, *A Liverpool Merchant House* (London, 1959).
15. D.M. Kreps, *Game Theory and Economic Modelling* (Oxford, 1990).
16. Douglass C. North Institutions, *Institutional Change and Economic Performance* (Cambridge, 1990).
17. Mary B. Rose, "The Family Firm in British Business, 1870-1914," in M. W. Kirby and Mary B. Rose, eds., *Business Enterprise in Modern Britain* (London, 1994), 61-87.
18. W.D. Rubinstein, *Men of Wealth* (London, 1981).
19. W.D. Rubinstein, *Capitalism, Culture, and Decline in Britain 1750-1990* (London, 1993).

20. Walter Runciman Papers, The Robinson Library, University of Newcastle- upon Tyne, WR, 3 June, 16 July, and 12 Sept. 1902.
21. Alexander Stephen Correspondence, University of Glasgow, Glasgow, UGD4/1/19-38.
22. R. Tsebelis, *Nested Games, Rational Choice in Comparative Politics* (Berkeley, 1990).
23. Martin Weiner, *English Culture and the Decline of the Industrial Spirit, 1850-980* (Cambridge, 1981).
24. Oliver E. Williamson, *Markets and Hierarchies* (New York, 1975).