

Chance and Societal Change

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Introduction

Despite the fact that social theorists, if they become famous enough to warrant biography, are often happy to acknowledge the role of chance in their own lives they are not willing to include any role for chance in their theoretical accounts of other people's actions and behaviour: in macro-theory, the idea that chance may on occasion be instrumental in effecting societal change has become, at least for theorists, a tacit taboo.

This article challenges that taboo and advances an argument I am developing regarding the nature of societal change: contrary to the common belief that societal change proceeds by each new form of society supplanting the existing mode, I contend that societal change is accumulative. The grafting of layers of societal development does not follow any single logic. One influence upon the patterning of societal change has been chance, the unpopular subject of this article. To illustrate empirically the influence of chance in the process of accumulative societal development, in part one of this article I examine the historically important example of the rise by the British to paramountcy in Gujarat, now a State in northwestern India. It was at a Gujarati port that the first ship from the newly-formed East India Company dropped anchor, in Gujarat that the first Company factory was established, where the first Company men did business, learnt to negotiate with local powers, and where, in the same year but independent from Clive and far from the Calcutta bridgehead, the British ceased to be just merchant-adventurers and started along the road that led to the Raj. This historical example affords an excellent test case for examining the nature of societal change and for inspecting what role, if any, may be played by chance. I show that chance had an undeniable presence in a sequence of events that will not fit into a 'supplantist analysis', no matter how Procrustean the analysis has been laid.

A role for chance was not generally accepted by either the new British rulers of India nor by their subjects: 19th century historians, theologians, and oppositional political

groups opted, instead, for explanations that presented national or cultural features as causally responsible. Similarly, early social theorists shunned and suppressed chance, a tendency that persisted and which is still evident today: in the second part of this article I examine theoretically the subject of chance. I conclude that the conceptual ostracism of chance is not only empirically and methodologically unwarranted, it is also politically unwise.

Part I: Bound for the East Indies

The European spice trade, the midwife to British paramountcy in India, was the offspring of chance biodiversity. The high price paid by 17th century Europeans for spices such as cloves, nutmeg and pepper, and the exotic qualities attributed to these precious buds, nuts and berries, arose from the simple fact that they came from trees and plants that only flourished in far-away foreign soils. As John Keay, in his history of the English East India Company (1991: 7), remarks:

‘The perversity of nature in lavishing her most valued products on islands so small and impossibly remote prompted wonder and fable. To what Milton called the “islands of spicerie” an air of mystery clung.’

Also clinging to the mysterious Spice Islands (at that time, a name reserved for the volcanic Moluccan triangle), and already ensconced in the key Sumatran and Indonesian trading centres, were Portuguese and Dutch merchants.

The chief ambition of the East India Company, and the chief incentive for the Company’s financial backers, lay in importing the precious spices directly by sea from their islands of origin and thus avoiding the heavy charges levied by the Levantine guilds and by other middlemen. The first and second Voyages of Company ships (1601-3 & 1604-6) confirmed the fabulous profits of such direct importation but they also revealed the local strengths of the Company’s Dutch rivals, the perils of the enterprise, and the greater trading value of Indian calicoes as compared to English goods.

‘It was obviously advisable, therefore, to open up relations with Indian merchants, either on the Gujarat coast or (since that was understood to be dominated by the Portuguese) at Aden or the Red Sea ports, to which Indian trading ships freely resorted. Hopes were entertained that these merchants would be eager purchasers of English broadcloth and other manufactured goods; while the acquisition of calicoes for sale or barter eastwards would not only yield a double profit but would obviate the

necessity of exporting large quantities of money.’ (Foster, 1926: 1X-X)

It was this trading strategy which set the course for the Company’s next (Third) Voyage, one of whose ships, the Hector, docked at Surat, then Gujarat’s premier port and entrepot, in August 1608. The Hector only remained at anchor for six weeks and it needed a further seven Voyages before the English Company was at last able to wrest a fragile Imperial firman (an edict) for a settled trading post, a ‘factory’, at Surat.

The Company’s decision to make contact with Gujarati merchants had been based not only upon intelligence gathered from their own early Voyages, but also in the light of the region’s already established reputation. The European picture of Gujarat may have been scrappy and lacking map co-ordinates but it was, for mercantile strategy, sufficient: they knew that there was to be found a thriving, wealthy, trading entrepot well-suited to the Company’s purposes. Many of the reasons for the region’s wealth and trading prominence, which were of ancient standing, lay, once again, in chance geographical features.

The area now comprising the State of Gujarat occupies the northern extremity of the western sea-board of India and is best understood as three adjoining areas: first, the barren, rocky, previously autonomous Kutch which contains two deserts, the big and little Ranns; second, the hilly Saurashtrian peninsula, largely scrub-land and forest; third, the mainland which, watered by sluggish rivers flowing down to the Arabian Sea, is in the main, a flat plain. The geographical position of Gujarat renders it the natural point of entry from the west through what is now Pakistan into the Gangetic Plain, and the two gulfs defining the west and east sides of the Saurashtrian peninsula include natural harbours formed by estuaries. Unsurprisingly, this well-placed, comparatively fertile region, where nowhere is further than 100 miles from the coast, has long supported agriculture and trade.

Chance geographical advantages have proved a mixed blessing for along with diverse traders, the region has also attracted the attention of foreign invaders. Following the defeat of the last Hindu Raj, in 1297, the region fell under the control of a succession of foreign powers. Initially a satellite province of the Delhi Sultanate, it was then an independent sultanate for a century and a half until a lightning raid of Mughal horsemen defeated the riven independent sultanate. In 1573 it was formally

incorporated as a *subah* (a province) of the Mughal Empire under the control of its viceroy, the *subahdar* – a post that quickly became a prized favour bestowed by the omnipotent Emperor, indeed in terms of prestige and income the key Imperial posting. As had his predecessors, the independent sultans, Akbar continued the custom of assigning lands to military leaders in payment of their contingent troops and the area was quickly divided between the leading powerful families (Gazetter, 1896: 209 & 214). In the wake of the collapse of the Mughal Empire, in the early 18th century, local chiefs seized or re-established principalities and the Gaekwad, the head of one of the Maratha clans that had previously been content to ransack the region and challenge the Mughal rulers on a seasonal basis, took the town of Baroda as his new capital. As I have suggested elsewhere (1998), these successive episodes of foreign conquest - for which British rule, achieved in the early 19th century, was the final chapter - share some common characteristics.¹ All the foreign invaders conquered and maintained their rule by military might; all were economically parasitic on the region, extracting taxes, cesses, rents, revenues, etc.; all the invaders worshipped alien gods but, despite campaigns of attempted conversion, prejudicial customs duties, razing of temples, and the like, none extinguished Hinduism which remained the religion of the majority of their subjects; all the invaders divided the region administratively, ruling directly the prosperous towns and ports whilst allowing local chiefs to continue ruling the remainder, the majority of the region, as long as they respected the conqueror's ultimate sovereignty.² This broad pattern of similarities, formalised bureaucratically by the British, suggests that the term 'paramountcy', usually reserved for the British rulers, could in the case of Gujarat be reasonably extended to cover all of the episodes of foreign rule under whose sway Gujaratis were subject for some seven and a half centuries until Independence.

So far, I think, the role of chance, here simply a matter of the uneven global distribution of the sought-after spices and the lie of the land, is indisputably evident: perhaps banal, but still undeniable. But, whilst chance may have been a factor fuelling the mercantile adventure, did it play any part in steering the direction of subsequent historical development?

The chance distribution of plants in lands far from Europe lent mystique plus profit to spices and led European merchant-adventurers unexpectedly to Gujarat. The local

conditions these merchants met with excited their curiosity and respect, for the thriving commercial centres well illustrated the sophistication of this ancient trading region. Nowadays, these same conditions excite historians and other social scientists, especially those with an interest in the 'modernisation debate' because, as Professor Mehta notes (1991: 11-12):

'There is a broad consensus among historians that Gujarat evolved cultural elements which distinguished it from most of the other regions of the Indian sub-continent. These elements could be identified and categorised as *business culture*. This was reflected during the Mughal period in an environment which the model-builders and practitioners of theory consider essential conditions.'

Professor Mehta's studies in Gujarati business history serve him to combat the Weberian thesis that '... the metaphysical and individualist world-view of the Hindus together with the social system that it perpetuated tended to retard the economic progress of India' (1991: 15). In opposition to the Weberian thesis, Mehta seeks to show that the Hindu social system was quite flexible and supportive enough to permit some groups of Gujarati Hindus to prosper under Mughal and later British rule, sometimes achieving great wealth and influence and joining other outstanding Gujarati businessmen drawn from other locally practised faiths such as Jainism.³ Although influence did accompany wealth, lending real privileges to newly-rich local businessmen, even the famous Jain magnate Shantidas Jawawahari, with his fabled jewellery and financial kingdom, could not rise higher than a 'mayorship': as the historian Commissariat (1957: 140), writing some thirty years before Professor Mehta, observed:

'The high social position he attained also helps to prove that the Hindu merchants and financiers of Gujarat during the 17th century, especially in the major towns of the province, enjoyed complete freedom to pursue their normal activities in trade and commerce, and to amass great wealth, even if they were debarred from the exercise of high political and administrative functions.'

Not just individuals, nor just families, but also whole castes could rise on the wave of prosperity enjoyed by the commercial centres under Mughal rule; in particular, 'Banias', a rendering of *vaniya*, the trading and commercial caste, thrived and were ubiquitous wherever profit could be turned in the subah of Gujarat. But, as with

individuals, their political significance was kept below their economic standing, a discrepancy that would reappear three centuries later as their descendants in Uganda found themselves scapegoated for the failures of Big Daddy Amin's regime.

'Business culture', whether inhibited or flourishing is not, however, in itself necessarily a promoter of societal change and the Gujarati caste, family or individual successes in business were achieved within conditions washed by the successive waves of foreign paramountcy: a further, more important, question to be asked in the 'modernisation debate' is of course, Why did this seemingly ripe region not develop indigenous capitalistic commodity production? - a question which has generated exhaustive research and predictably conflicting answers,⁴ none of which are concerned with emphasising the purely chance factors that became influential in promoting industrial capitalist production in England, but not in Gujarat.

Manufacture in pre-19th century Gujarat took place either in rural villages or in urban centres. In broad brushstroke, rural production was limited, followed traditional occupational caste specialisms and was geared largely to the villagers' own subsistence needs. In the urban centres, in contrast, production was responsive to the demands of the ruling elites and the vibrant mercantile economy; indeed, the old Gujarati name for these urban centres, *kasabas*, means 'crafts' (Desai, 1978: 23-24). Well known for textile manufacture, cotton spinning, and dyeing, Gujarat was also renowned for high quality silk, velvet, satin and other luxury cloths. Much of this textile manufacture was commissioned by merchants or their agents who supplied capital in advance payments to the artisans, much like the European 'putting-out' system. In addition, the demands of the ruling elites and the merchants also supported ship-building, jewellers, indigo and saltpetre plants, and a host of other value-added forms of production. Unsurprisingly, dynamic manufacture encouraged the growth of urban sophistication, sponsoring specific craft guilds, *mahajans* (intra-caste guilds regulating all aspects of particular trades), finance houses, money lenders, and other assorted social formations. The largest urban centre, the *de facto* capital Ahmedabad, awed European visitors who, in their written accounts, noted the fine streets, impressive architecture, the pleasure garden, the sophisticated political structures and other features which rivalled major European cities such as London.

One feature apparently missing in these impressive Gujarati manufacturing centres,

but commonplace in England and throughout Europe, was the water mill. The precise reasons for the absence of water mills in the region are difficult to fathom (as are the reasons for Europe's slow adoption of the windmill), but one obvious culprit is the shortage of reliable, vigorous rivers in Gujarat; for there was no shortage of local skills, initiative or the materials to build mills. As with many other technologies, in Europe the water mill promoted new social roles and it also stimulated scientific inquiry (the question of whether the under-shot or over-shot water wheel was superior). And, of course, it powered the machinery of the Industrial Revolution until the advent of the steam engine, the single greatest improver of production, whose significance was largely ignored by early theorists such as Adam Smith who, instead, overly concentrated upon the productive power of the division of labour.⁵ Even if Gujaratis had started along the path to competitive capitalist commodity production they would soon have been halted by the lack of a suitable power source. Labour-power was, in Gujarat, only challenged in the second half of the 19th century (Mehta, 1991: 128; Leadbeter, 1993: 29-32). By this time, Gujarat was a province of Her Majesty's Empire and the British had been the paramount power for half a century. British paramountcy in Gujarat took some 50 years to establish and was effected by military conquest, usually in conjunction with wider military campaigns in other parts of India. A part of the reason for this change in the role of the English Company employees was what social theorists nowadays reflexively call an 'unintended consequence of action' but, as I will elaborate upon later, is better considered as a chance event.

The East India Company, the world's first joint-stock Company was established, with Elizabeth's royal assent, to monopolise trade between Britain and the 'east Indies'. From the outset, the Company was linked to sovereign and nation⁶ and by the 1760s it made the largest contribution to the Chancellor's coffers. But, for the Directors and shareholders of the Company political ambition and colonial adventure were anathema: what they sought was a good, but not too risky, return on their investments and any action which threatened this pecuniary aim was prohibited. For some 70 or so years the Company took heed of the advice of their first ambassador, Sir Thomas Roe, and his oft-quoted dictum - "... if you will profit, seek it at sea and in a quiet trade, for without controversy it is an error to effect garrisons and land wars in India."

In 1668, the Company acquired the island of Bombay, for which they paid Charles II a nominal annual rent, and by 1688 it had become a sizable colony and the new site for the Presidency. This relocation had been occasioned by the need for a safer, defensible base for Company business in west India as Maratha raids upon Surat and elsewhere in Gujarat became more frequent and bloody. The English move prompted the start of a migration of Gujarati merchants and businessmen who joined the Company men on their new, insalubrious island fortress. Those that stayed behind could witness the decline of Surat⁷ as the collapse of Mughal rule, following the death of Aurangzeb in 1717, ushered in a century of dangerous instability. By the mid-18th century, the English were finding it almost impossible to trade profitably in Gujarat, either as agents for the Company or on their own behalf.⁸

The reasons for this abrupt change in Company strategy, from a non-interventionist commercial strategy to involvement in local conflicts, fortress building and colonisation, are highly complex and varied from Presidency to Presidency (Brown, 1995: 50-51). For the sake of this discussion, what is of interest is the chance invigoration of a disposition that enabled the English Company to maintain its trading presence in Gujarat and, eventually, to become paramount in the region and throughout India. This advantageous disposition was the Company's military standing which had arisen because of features of the trading world into which the Company had been launched in the 17th century.

From the outset, the ships of the Company's 'Voyages' had been armed and the Company men prepared to do battle. Part of the explanation for this military aspect to the Company's business lay in European rivalry for the spice trade, a rivalry that not infrequently led to fighting at sea or at the centres of trade. Equally demanding of ordinance was the need to protect the cargoes carried to and from the 'East Indies'. Initially, the Company Directors envisaged significant trading of commodities; in the case of Gujarat the aim of exchanging English goods for local produce such as saltpetre or indigo to be brought back to London, or Gujarati calicoes to be sold on, or exchanged for spices. Thwarting Company aims, this trading strategy proved naïve for there was a decidedly small market for heavy English woollens or iron in India and thus the Company was obliged to purchase, rather than trade for, Gujarati products.⁹ Similarly English attempts to establish their own industrial production,

attempting to circumvent local middlemen as they had Levantine merchants, floundered in the face of entrenched local labour politics (Commisariat, 1975: Chp.XXVII). Unable to trade or set-up their own production sites, the Company was obliged to purchase goods which necessitated its ships carrying large quantities of bullion (usually, silver rials) across the high seas. Consequently the ships were rich pickings, both on their outward and return voyages and needed to be defended as did Company employees and Company investments in Gujarat and throughout the Company's trading sphere. In addition, demonstrations of maritime military prowess persuaded the Emperor to allow the Company to maintain a factory at Surat. The Mughals were a wholly terrestrial power and were keen to play the English off against the Portuguese whom, at that time, were operating an extortion racket on shipping, including ships owned by members of the Mughal elite. Whereas on land the empire was well defended (Surat, eight miles up river from the estuary harbour, was a walled city under night-time curfew whose four entry gates were manned day and night by armed guards), the Mughals' lack of maritime power was a weakness exploited by the Portuguese. So, the Company's 10th Voyagers' defeat of a far stronger Portuguese fleet of large galleons impressed greatly the Mughal general Sardar Khan who, along with a crowd of onlookers, witnessed the sea battle and was quick to convey news of this rout to his Emperor. In his memoir Nicholas Withington records that 'this fight being before thousands of the countrye people, who (to our nation's greate fame) have divulged the same farre and neare.'¹⁰ As their nation's prestige rose following this battle so too did the Company's, and having established themselves in the region, the Company were to find guns and arms indispensable in the volatile region: when, in 1664, the Maratha forces plundered Surat for 40 days, only the Mughal Governor's castle and the English Factory resisted.

From the earliest days, then, armaments were an integral part of the traders' repertoire and an essential lever upon Mughal politics. But aside from the aberrant, ill-judged, and short-lived actions by Sir John Child against the Mughals in 1686, the Company did not enter into any campaign that would have gone against Roe's cautionary dictum. When, in the mid-18th century, trading conditions had become fraught in Gujarat it was all groups of traders who suffered, not just the English. So bad had conditions become that, in 1758, the Surati merchants forsook the old order, a city

ruled by an independent Nawab, in favour of a European protectorate and, having chosen the English over the Dutch they ‘... offered to finance the take-over by the British of the Surat citadel. After considerable hesitation, the British made the requested move and, in March 1759, the citadel fell into their hands.’ (Torri, 1982: 268; and see Bruce Watson, 1978). For the next forty years, Surat was jointly-governed, by the Nawab and the British until, in 1800, the Nawab was pensioned-off. Under joint-rule, under protection of English weaponry, Surat became a comparatively stable, peaceful and prosperous oasis in a turbulent region. That the English were instrumental in watering this oasis, and maintaining a presence in the region in which, after the defeat of the contending Marathas, they would become the paramount power, was crucially dependent upon their military strength. This strength is, then, the candidate for a disposition which was triggered by the demands of the Surati merchants who found themselves vulnerable in the wake of the collapse of Mughal rule in Gujarat. These demands, which triggered the disposition, had no connection to the rationale for the Englishers’ military might.

Part II: The Very Unwelcome Guest

There are, of course, many other instances of chance playing her part in the two-and-a-half centuries that had started with the first British ship docking at an Indian port and ended with them starting to rule the subcontinent. The examples of chance highlighted in the foregoing discussion - chance biodiversity, chance technological differentials and chance British military strength - have been chosen so as to examine, later in this second Part, two, highly rare, modern theories of chance, not because they are necessarily more noteworthy than other candidates of chance occurrence during this period. I am, most emphatically, not arguing that chance - as illustrated in these examples - was *the* cause of British paramountcy in Gujarat, and nor am I claiming that chance always intervened in the patterning of this historical episode. (Indeed, in another case of comparative technological developments, I myself have argued elsewhere, (1996), that the slow adoption of the printing press in Gujarat, with all its attendant societal consequences, was because of pre-existing local cultural factors that acted as predictable inhibitors to the adoption of print technology). Rather, I think, the question to be answered is: How can chance influences be distinguished, and then accommodated within a theory of societal change?

The most common practice, from all sides, has been simply to discount chance altogether. This blanket dismissal characterised the contemporaneous reception of chance as historians, political spokesmen and religious leaders sought to explain India's subjection to a handful of English 'hatmen'. Clearly, the notion that the British had, to some extent, been plain lucky, was not the sorts of narrative feature that appealed to Imperialist historians. Looking back upon the exploits of the first Englishmen in India Philip Anderson (1856: 5), an historian and Chaplain in the service of the East Company stationed on Bombay, found little to admire:

'In writing the word "Empire" we are reminded how ill it assorts itself with the facts which are here to be recorded. The word conveys ideas of grandeur, wealth and power; whereas as this and the following two chapters are annals of mediocrity and weakness: sometimes of drivelling baseness. The instruments which Providence employed to create a British power in India were often of the basest metal. But such answer the same purpose as the finest, in the hands of Infinite Wisdom. And though we may feel disappointed, we ought not to be surprised, when we see little to admire in the Pioneers of the Eastern Empire, and find that some were amongst the meanest of mankind.

Yet, bad as were such agents, it will, I think, appear in this work that British power has been established by the force of British character.'

Anderson's ungenerous assessment of the early 'pioneers', penned in the mid-nineteenth century, may have found favour with his fellow countrymen for the behaviour of their forebears in Gujarat was out of keeping with the exalted image that the British now gilded their histories. In common with many other historians and social scientists, Anderson mistook precursors for progenitors: mistakenly, he saw the forerunners of the British Raj as being its begetters. In contradistinction to the Reverend historian, we might note that, rather than the superior 'force of British character', it was actually the character of British armed forces that proved pivotal in pre-Raj Gujarat. And, just as sordid military aspects to the Company's involvement in India were unacceptable to nineteenth century nationalistic sensibilities, so too was the notion that the English had, on occasion, been plain fortunate: the eventual rise of the British to paramountcy may have been providential, but it was not ordained by Providence.

Identifying mysterious forces which led to the eventual triumph of the British was not a sport confined to Victorian Company historians: on the obverse side Mahatma Gandhi, Gujarat's most famous son, offered his supporters a mirror image of Anderson's explanation only now it was the degeneracy of the 'Indians' which allowed them to be conquered by an ignoble race of 'shop-keepers':

'The English have not taken India; we have given it to them. They are not in India because of their strength, but because we keep them. [...] They came to our country originally for purposes of trade. Recall the Company Bahadur. Who made it Bahadur? They had not the slightest intention at the time of establishing a kingdom. Who assisted the Company's officers? Who was tempted at the sight of their silver? Who brought their goods? History testifies that we did all this. In order to become rich all at once we welcomed the Company's officers with open arms.' (1993: 15)

Just as Anderson essentialised the British by their common national 'character' so too Gandhi essentialised 'Indians', signalled by his use of the common pronoun and by his claim of a common national character failing, the greed of 'we Indians' that had given the British their country on a plate. In fact, at the time the British rose to paramountcy, at the time the country was supposedly first handed over to the white traders, neither an homogenous 'India' nor 'Indians' existed; both were a creation of Imperial conquest. In reality a common Gujarati identity only appeared alongside a wider Indian identity that itself arose during the 19th century in opposition to the British. Gujarat, like many other areas of the subcontinent, had always been home to a hugely diverse, fluctuating population of varied cultures, religions and histories: even within the majority Hindu population the divisions were legion and Gujarat has long been known as the 'land of castes'. Those who 'assisted the Company's officers', were 'tempted by the sight of their silver', or 'bought their goods' were far too varied to be caught within Gandhi's self-flagellating common pronoun: this specious commonality, which ignores the skeins of power and influence in 'India', no more explains the rise of the Raj than does Anderson's religious chauvinism.

Lastly social scientists who, in common with Anderson and Gandhi, came to stress defining essences of Oriental and Occidental cultures, essences that prohibited or permitted the progressive development of modernism. Their reasons for the dismissal of chance, and the related success of the 'supplantist' model of societal development,

are many and complex but figuring chief amongst them was the growth of scientism and the accompanying elevation of methodology over discovery. This unfortunate trend towards scientism is evident in the opening sentence of Montesquieu's well-known and influential Enlightenment tome, revealingly entitled *The Spirit of the Laws*:

'Laws, taken in their broadest meanings, are the necessary relations deriving from the nature of things; and in this sense, all beings have their laws: the divinity has its laws, the material world has its laws, the intelligences superior to man have their laws, the beasts have their laws, man has his laws.

Those who have said that *a blind fate has produced all the effects that we see in the world* have said a great absurdity; for what greater absurdity is there than a blind fate that could have produced intelligent beings?' (1756: 3)

Montesquieu's respect for laws was, by the time that his book was published (1756), shared by many of the progressive Enlightenment *philosophes* as they battled against irrational prejudice and superstition. For Enlightened Christians such as Montesquieu unwilling to forsake their religion, the new challenges to their faith from science and the mechanistic *weltanschauung* threw them into the deist camp – God became a new sort of law-giver. It seemed but a logical step to apply the methodology of natural science to the social world: Adam Smith's establishment of the first accepted social science rested upon his apparent importing of science's alleged hallmark, explanation through laws, into political economy, a methodological strategy later attempted by Durkheim for sociology.¹¹

Alongside this emphasis upon law-like explanation, nineteenth century foundational sociology was also informed by an eighteenth century view, championed by Smith and others from the Scottish School, that distinguished stages of progressive societal development. Each of these progressive, historical stages *supplanted* its predecessor, capitalism, for instance, supplanting feudalism, mercantilism, or whatever. By chance misfortune, this commonly-held 'supplantist view' became recast within an evolutionary framework before a credible theory of natural evolution had appeared. In this sense, then, the Comtean hierarchy of the sciences was premature for at the time that the christener of the discipline was writing, biology was still in its infancy, too immature to spawn sociology, too young to deserve methodological emulation.

Nonetheless, societal evolutionism became entrenched within sociology, and in Hegelian guise within Marxian societal theory.

The failure to discern any laws of society, *any* sociological laws, eventually saw off the pretensions of Positivism but the assumptions of societal change accomplished by supplantism and the related belief that societal change was evolutionary in character persisted; having crossed the Atlantic, societal evolutionism became a mainstay of American macro sociology and was still being advocated by Talcott Parsons in the mid-1960s (1966). Meanwhile, sociology's allegedly sister discipline, biology, enjoyed acclaim and prestige following Darwin's version of natural evolution. What was noteworthy about biology's disciplinary success was the fact that it was not founded upon the discovery of a new law but, rather, upon the identification of the mechanism that facilitated evolution, a mechanism that showed, contrary to Montesquieu's scornful pronouncement, how 'blind fate' could indeed lead to the creation of intelligent beings without the need for a divine law-giver nor a belief in progressive development.

A century and a half on, and notwithstanding the extraordinary advances built upon Darwin's arguments, it is still not possible for social theorists to borrow their picture of societal development from the methodology of evolutionary biology and nor is it possible, at present, for us to turn to evolutionary biology for empirical support in identifying chance influences. The reason for this disciplinary methodological barrier is partly one of logic. The logical objection to social theorists drawing a methodological parallel between societal and Darwinian evolution concerns the special nature of Darwin's explanatory mechanism. In bald summary, my argument against this methodological ploy runs as follows: the only credible explanation for natural evolution is Darwin's; what distinguishes this explanation is his identification of the mechanism that permits both continuity and discontinuity between species and which also accounts for adaptive change. In order for this explanatory logic to operate, phenotypic features must be either preserved or lost. Natural selection involves natural loss: no loss, no evolution. Despite delusory appearances, the development of what Popper referred to as 'World 3' (artefacts and customs created by humans), is not evolutionary because past achievements are most usually preserved; a trend strengthened dramatically by Gutenberg. The artificial world, a

major influence upon the expression of the human phenotype, is, then, built by grafting new layers upon the past.¹²

The old evolutionary picture of societal change, wherein a newly emerging form of society will come to supplant its predecessor, is still the palimpsest for many contemporary writers of social theory. So, for illustration, both ‘postmodernists’ and ‘globalisationists’ claim, often dramatically, that we are entering a distinctively new age that will sweep aside earlier versions of societal organisation. From the ‘accumulative’ perspective, however, these and similar claims are viewed as erroneous for, unlike phenotypic features that cannot be restored by the individual when once lost to natural selection, earlier features of the artificial world are routinely preserved within the contemporary manifestation and may be redeployed if circumstances demand. For example, neither innovative technologies nor novel social organisations supplant predecessors: when television sets became a mass acquisition it was feared, wrongly, that the wireless and conversation would be extinguished; this did not occur and nor will the Internet vanquish other forms of communication. Some earlier forms of communication may fall into disfavour, they may reside only in museums, but they are not, properly speaking, extinct: ticker-tape machines (and soon probably Faxes), may no longer be manufactured but, unlike Dodos, they easily could be in the future. Similarly, the nation state was built upon earlier forms of collectivism and collectivist sentiments such as tribalism and religious communalism; these earlier forms are preserved, not lost, and when the state is disturbed these dormant features may be reawoken, as has happened so sadly in the former Eastern bloc countries and elsewhere. Societal innovation adds to our repertoire, it does not eliminate the social past.

Curiously, and perhaps contrary to expectations, current evolutionary biology does offer some intriguing empirical and theoretical purchase upon the roles chance plays in affecting behaviour. These insights come not from sociobiology, nor from its sibling evolutionary psychology, but from the rather different focus of behavioural genetics. Unlike sociobiologists, behavioural geneticists are concerned largely with distinguishing environmental and genetic reasons for *variation* among *groups* of individuals. The most common research methodologies are twin studies and adoption studies, taking advantage of large data sets held in several countries, and the known

genetic similarity of siblings, fraternal and identical twins. Behavioural geneticists have examined a wide variety of values and behaviours and their findings 'have been characterized by both excitement and controversy' (Sherman *et al*, 1997), in particular because of the repeated claim that while genes are an important source of variation, as are unique environmental factors, the shared environment has negligible influence.

A number of texts written for the non-scientist have brought behavioural genetics to the attention of the wider public,¹³ among which one of the most notable has been Steven Pinker's account of Judith Harris's reanalysis of the evidence that parents have a long-term effect on the development of their children's personality. Harris's much debated conclusion had been that it was socialisation outside the home, especially within peer groups, that accounted for the variations found in adult siblings (1995 & 1998). In their explanations for individual development pathways, Harris and Pinker part company for unlike Harris, Pinker suggests that it may be chance individual genetic development and the chance 'filling of niches in peer groups' which explains observable variations (2002: 396-397). Interestingly, Harris's objections to Pinker's advocacy of chance determinants stem from her adherence to an evolutionary psychological methodology which leads her to balk at the prospect of admitting random influence into the explanatory equation: for Harris, even if we do admit the possibility of random, individual chance developments in the personalities of children we can still submit the effects of these idiosyncrasies to the logic of evolutionary psychology.¹⁴ It would, I think, be fair to note that Harris's response to chance reflects an overarching tendency within Darwinian analyses to regard all outcomes as the accountable products of selective pressures – a tendency which once again neuters chance's explanatory role. One unexpected belief shared by religious thinkers, by sociobiologists and by evolutionary psychologists, is that change follows an ordained pattern, either God's or Darwin's.

This disciplinary resistance to chance, the reluctance to admit the salience of random individual differences, was encountered by the eminent American psychologist Professor David Lykken. Using the Minnesota twin data, Lykken (1993) investigated mate selection and concluded that 'it is romantic infatuation that commonly determines the final choice [of a mate] from a broad field of potential eligible and that

this phenomenon is inherently random', and not patterned in accordance with genetic similarities. The implications of this study for evolutionary biology and psychology, and for romantics, are obvious and profound, and supportive of this article's insistence that chance colours our social world, but the research remains unsubstantiated because no follow-up studies have been published.¹⁵ One reason for the absence of corroborating findings may well be the general aversion of psychologists to the suggestion that it is chance which rules the all-important question of which genes are transmitted from one generation to the next: as Professor Lykken observes, 'Psychologists have always assumed that romantic attachment follows reasonably orderly rules and they have built books and careers on debate about what those rules are.'¹⁶ Unsurprisingly, given this disciplinary aversion to chance, to the notion that human mating is, in Lykken's phrase, 'adventitious', the Professor met with stiff opposition to the publication of his article which was eventually accepted for publication because of the robustness of the data he presented in favour of his adventitious analysis.

I have suggested that because of insuperable logical barriers we cannot use Darwinian methodology to explain societal development, and that the current state of evolutionary biology can offer only promising, but inconclusive support for the argument that chance affects our behaviour and personalities. The disagreement between Harris and Pinker, and the reception given to Lykken's study all point to the deeply held hostility felt by academics towards chance, a cold-shouldering also encountered by sociologists who trespass outside disciplinary boundaries.

There have been very few theoretical treatments of the topic in British sociology: two exceptions to this general neglect are Mike Smith (1993) and Roger Sibeon (1999), both of whom argue, in differing ways, for an acceptance by theorists that chance is not simply a residual analytical category, nor an ignorable aspect of social life. Smith and Sibeon are, however, exceptions to the general tacit silence on the subject and Smith's own account of his difficulties in publishing a discussion on chance echo Professor Lykken's and appears to confirm Raymond Boudon's judgement that: 'In the social sciences, chance is generally thought to be a very unwelcome guest, ubiquitous but studiously concealed, ignored and even denied the right to exist by virtually everyone.' (1986: 173)

In his discussion of theories of societal change, Boudon extends an invitation to this awkward exile: what, in my view, distinguishes Boudon's discussion is his insistence that:

'... we must see chance not as a substance, a variable or a set of variables, but as a structure which is characteristic of certain sets of causal chains as perceived by an observer.' (1986: 179)

This structural conceptualisation of chance rests upon the logic of the 'Cournot Effect', for which Boudon cites one of Cournot's own illustrative examples:

'Cournot, of course, illustrated the idea by means of a very simple example, such as that of a falling slate stunning a passer-by. The fall of the slate was certainly predetermined. It was not properly fastened on the roof and was at the mercy of the slightest gust of wind. The fact that the passer-by was walking just below the roof was also the result of an easily traceable causality. He was going about his business that day as on any other day and was thus bound to pass below the roof in question. So we are dealing here with two causal series. The fact that they converge, however, is according to Cournot, not causally determined, since there was nothing to make the slate fall just as the man was passing.'

In Boudon's opinion, the use of such 'simple explanatory examples' suggests that 'the field of application of the concept is not very well understood': to illustrate properly the 'field of application' within social theory Boudon re-presents Colas's study of Lenin, arguing Colas demonstrates that the revolutionary leader's political actions and doctrines can only be understood fully if the influences of Cournot Effects are admitted.

In the conclusion to his treatment of the topic Boudon states that:

'Chance is therefore not nothing. It is a particular form that sets of cause/effects linkings as perceived by a real observer can take on.'

This introduction of an emphasis upon a 'real observer' may be slightly misleading: in the quoted example of the slate falling from the roof, if we substitute first a passing dog, and then a sprouting plant for the 'passer-by' then the Cournot Effect still occurs - but without the need for a 'real' observer. Chance is a feature of the world, not a product of human observation. Furthermore, if we re-examine the example of the falling slate, then it seems less plausible that its fall was 'predetermined': rather, the

poor workmanship of the tiler had left it with a disposition that was made effective by the strong gust of wind. Rather than the ‘sets of cause/effects linkings’ of which Boudon writes, we might instead reconceptualise the linkings as one of dispositions actuated by chance. Recast in this format, Boudon’s presentation of Cournot Effects captures nicely the turn of events in Surat in 1759: British military prowess arose because of an accountable sequence of demands associated with Company trading (the need to protect cargoes and bullions, the political advantages arms afforded in Mughal Gujarat, etc.); when political conditions deteriorated in the wake of the Mughal Empire’s collapse this military prowess was sought by local traders, and thus a disposition unconnected with this collapse became activated. This event can reasonably be seen as an example of the Cournot Effect.

One temptation may be to imagine that the unexpected significance of British military strength could be subsumed under the label of ‘unintended consequences of action’: certainly, it had not been the intention of Company directors, nor of their employees, that they would move to rule and administer Gujarati cities when the Mughal empire expired. However, this is not what lent the events of 1759 their chance character. Whereas all examples of *this kind* of chance event may be unintended, by no means all unintended consequences of action equate with chance. Intentionality requires foresight, and no one in this example did, or could have, foreseen the opportunity that their military standing would bring. In the workings of a Cournot Effect, the effect is unpredictable, a commonly specified aspect of chance and one that Aristotle emphasised. Aristotle, keen to establish the causal connections between events, arrived at a theory of chance almost identical to Cournot’s and he argued that it was simply a matter of *when* something happened, not how, that was key. Chance events were not special or mysterious, rather, they were exceptional and unpredictable (Ross, 1988: 77-80).

It would be unreasonable to presume that there is a defining ‘essence’ of chance; as with any other similar category, chance phenomena share Wittgenstein’s ‘family resemblance’ of similarities and differences (Wittgenstein, 1983: Rs 65-67). An alternative sibling form of chance events, and the mechanism by which they may operate is explored by Jared Diamond in his provocatively subtitled *Short History of Everybody For The Last 13,000 Years*. Eschewing any form of genetic determinism,

the evolutionary biologist and biogeographer Jack Diamond greatly expands an argument he had outlined previously in his non-technical account of human evolution. *Guns, Germs and Steel* addresses the question: ‘Why did history unfold differently on different continents?’ to which Diamond answers: ‘History followed different courses for different peoples because of differences among people’s environments, not because of biological differences among peoples themselves’ (1998: 25). As Diamond recognises, this type of answer, this sort of analytical approach, has itself a long pedigree (Montesquieu’s ‘theory of the climates’ springs to mind) but, nonetheless, recent findings in a number of scientific disciplines merits a revival of the approach that had fallen into disfavour amongst professional historians. Diamond’s specific arguments are contentious¹⁷ and the details need not detain us but, where I feel he succeeds is in revealing the influences of topographical, geographical and biodiverse ‘environmental’ factors on human development, technological and societal. The extent of this influence is debatable, but Diamond presents a plausible case for a degree of influence that accounts for different patterns of societal change, a plausible case that avoids the charge of ‘environmental determinism’. Using many, many examples, Diamond shows how variations in environments, in for instance the lie of the land, or the indigenous animal populations, affected our ancestors’ abilities to migrate, domesticate livestock, etcetera. These environmental variations were, of course, the product of chance; beyond our ancestors’ control. The effects of such chance factors gave, in Diamond’s view, advantages or disadvantages that became apparent when groups of our ancestors came into contact; they go some way to explaining why some of these groups, and not others, became conquerors and why some human populations remained technologically stagnant. Again, here it is the timing of chance which lends it gravity: first encounters between cultures possessing differing advantages only happen once and in a particular way; it is this unrepeatability that may prove decisive for shaping their mutual history.¹⁸ If watermills had been established in Gujarat at the time when European traders stimulated demand for local products then perhaps it might have been Gujarati manufacture that first became mechanised and perhaps later, steam engines would not have had to be imported to Bombay from England. More than a nice riposte to genetic determinism, Diamond’s study also illustrates the

analytical possibilities of chance as a subject not defined simply as the Cournot Effect. Unlike in the Gujarati example of a Cournot Effect when local conditions unexpectedly gave new significance to British military standing, the international distribution of indigo, saltpetre, pepper, opium and the rest of the desirable commodities to be found in the 'East Indies' had nothing to do with expectations or intended actions: it was not an action at all, nor an event. The natural pattern of unequal distribution was a given fact and it was this chance fact that provoked resourceful speculative capitalists living in 17th century London to arrange for hazardous importation from another continent. That it was the British who went to Surat, rather than Gujaratis to London, cannot be explained solely by nature's capriciousness but nonetheless such natural variations of soil and climate were the chance precursor of the Company's voyages. It would be possible to label such natural chance patterning as a 'necessary but not sufficient condition' for the events that unfolded – a *chance* necessary but not sufficient condition.

Why bother with chance?

I have tried, in this article, to examine the subject of chance using empirical examples drawn from an important historical episode. I have indicated that the neglect of chance is not confined to sociology or social theory but is also to be found in some areas of evolutionary biology. There are some supporting findings from behaviour genetics but as in social science, the disciplinary door is currently closed to the 'unwelcome guest'. In social science, Enlightenment legacies promoted the supplantist model of societal change and the accompanying belief in societal evolution; these legacies became part of the theorists' vocabulary as did the smothering of chance. Nevertheless, there are exceptions to the usual exclusion policy and Jared Diamond's and Raymond Boudon's work shows us how chance may be recognised and incorporated within theoretical analyses of societal change. I have pointed out that facts and events we recognise as chance are not defined by an essence of chanciness and that the examples from Gujarat, and Diamond's and Boudon's theoretical analyses of such examples, are directed towards different forms of chance that played different sociological roles and so demand different theoretical treatment. Clearly, there is a lot more that needs to be done in this area; other forms of chance need to be distinguished as do the theories that would accommodate them. Which begs the question: what is to be gained from readmitting the 'unwelcome guest'? One

answer to this question is to examine the alternative. If we continue to shun chance then we are open to the inflation of causality and we court determinism. In a picture of societal change which excludes chance all events are likely to be presented as causally determined: the danger emerges that causality, faithful to its etymological origin, leads to blame – individuals, classes, social groups, or whomever, become morally liable for their chance societal development. At the individual level, a failure to acknowledge chance influences may lead one to exaggerate one's own qualities as causally responsible for what was in fact a fortuitous turn of events: for example, a British Prime Minister might think that he is personally responsible for his Party's electoral successes, that it was his qualities and boyish charm that brought a landslide victory, whereas the reality may be that the electorate would have voted for anybody who was not a member of the detested opposition. The advantages that may be gained by accepting the operation of chance in societal affairs are political as well as analytical. In the example of the British rise to paramouncy, if this is viewed as simply the outcome of causal characteristics of 'British' or 'Indian' cultures then inevitably the membership of both these two cultures, Britishers and Indians, become morally judged and liable in terms of historical outcome. And this was exactly what did, and does, happen in the case of Britain's Imperial rule of India. If, instead, we explicitly recognise that this outcome was in part the product of chance occurrences then we don't prohibit sociological explanation, but we do discourage the wrong-headed attribution of responsibility for events that emerged for *both* chance and sociologically deterministic reasons. The British rise to paramouncy in Gujarat was not an evolutionary step and nor did British culture supplant the indigenous ways; instead, it should be seen as a further accumulated crust upon our mutual history; a crust which hardened partly by chance.

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Notes

¹ The exception to this pattern is the short-lived Gaekwad's period of paramountcy, for the Maratha clan of which he was the leader were Hindus. In all other respects, however, this Maratha paramountcy conformed to the pattern followed by the other foreign conquerors.

² In this administrative bisection under the independent sultans the crown domain administered directly was known as the *khalsah*. For the disturbing complexities of land ownership, taxation and administration in Gujarat, and those specific to the villages, see *Gazetter*, 1896: 208-228.

³ Similarly Jack Goody has used Gujarat as a case study with which to examine critically the key assumptions of the Weberian paradigm (Goody, 1991)

⁴ Particularly important contributions to this debate include Habib, 1969 and Gopal, 1975.

⁵ As a member of the illustrious 'Glasgow College', Adam Smith knew well the University's 'Instrument Maker', James Watt. Watt's personal opposition to the smaller-sized, more powerful, and hence more versatile, high-pressure steam engine blinded him to the invention's dramatic future. Donald Cardwell remarks:

'If Watt failed to foresee the future it is also surprising that Adam Smith, in his *Wealth of Nations* (1776), makes no reference at all to steam engines, much less to the radically improved version that his young colleague had invented.' (Cardwell, 1994:167)

One possible reason for Smith's myopia may be that by the time he published his *Wealth of Nations*, he had already harboured the notion that the division of labour is the greatest cause of productive improvement for some twenty years (the idea first appears in his *Lectures on Jurisprudence*).

⁶ On the early links between the Company, the Crown and nation, see: Chaudhuri, 1965:29-31.

⁷ The extent of this decline is open to question: see Das Gupta, 1979.

⁸ Although always forbidden by the Company, 'private trading' was rife amongst its employees: for the influence of this illegitimate business on Company policy in Gujarat, see Nightingale's important study, 1970.

⁹ The low demand for English products also hampered attempts by Company employees to bribe Mughal officials. One way round this problem was to offer novel bribes, then called 'toys': this strategy was particularly important for the higher-ups in the Mughal hierarchy and especially for the Emperor himself whose fabulous wealth made any ordinary gift appear tawdry.

¹⁰ Nicholas Withington returned home in chains accused, perhaps wrongly, of embezzlement following an appalling misadventure as an agent of the Company in Gujarat. His account, an attempt to clear his name, and other collected memoirs for this Voyage are to be found in: W. Foster (Ed.), 1934.

¹¹ Keen to champion French thinkers against the then prevailing fashion for British and German theorists Durkheim, in his minor Latin thesis, presented Montesquieu as the true founder of social science: 'It was he, who, in *The Spirit of Laws*, laid down the principles of the new science', a science brought to maturity in Durkheim's view by Comte. (Durkheim, 1965).

¹² This argument is sketched, for a different discussion in: J. Mattausch, 2000.

¹³ For example, D. Hamer & P. Copeland, 1998.

¹⁴ Author's correspondence with Judith Harris.

¹⁵ To my knowledge the only follow-up to Lykken's study is a critical response, presented as a yet unpublished conference paper (Rushton, 2003).

¹⁶ Author's correspondence with Professor Lykken.

¹⁷ In particular, Diamond's well-meant claim that Polynesians exhibit greater intelligence than Europeans is not only implausible, it also replicates in obverse fashion the old Eurocentric arguments he so strongly opposes.

¹⁸ A broadly similar influence is recognised in physics where it is known as 'sensitivity to initial conditions' (see for example the discussion in Ruelle, 1993: Chp.7). Because in societal development such initial influences are unrepeatable, because they never reoccur, they cannot be captured within 'risk' analysis.

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