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The Uses of Counter-Factual History

Can there be a theory of historical turning points?

It is often proposed in popular writing that the entire course of world history would have been changed by a single event. If Hitler had died in World War I, there would have been no Nazi movement and no World War II; hence the British empire would never have collapsed, Soviet communism would have been confined to Russia; nuclear weapons would not have been invented; and so on. I have heard a respectable historian – on a television series, admittedly – argue that if the Romans had not lost the battle of the Teutoburger Wald in 9 A.D., the Roman empire would have spread civilization east of the Rhine; Germany would never have existed, and thus no Bismarck, no Hitler, and so on. Perhaps the most scholarly of these turning-point theories is that of Jack Goldstone (2002, 2005), who argues that if the winds had changed in the English channel in November 1688, the Dutch fleet carrying William of Orange would not have reached England; the Glorious Revolution would never have taken place; parliamentary dominance would never have come about, and Catholic conservatism would have become re-entrenched in England; this would have had world-historical consequences since the political freedom which fostered both English empiricist science and business entrepreneurship would have disappeared, and thus the ingredients for the industrial revolution would not have come together. If the winds had blown differently in the Channel that day, the entire world would still be living in the agrarian age.

These arguments for historical turning points are sometimes put forward as a principled argument against causal determinism of the course of world history; sometimes as clever curiosities and flights of imagination. I will attempt to show that the logic of turning-point arguments does not disprove historical causality, but on the contrary depends upon belief in causality. Sometimes this is only an implicit belief in the clichés of folk historiography; occasionally, as in the case of Goldstone, a serious sociology is explicitly invoked. In either case, there is a tendency to misperceive how historical causality works through broadly based processes which are not easily stopped or drastically diverted by particular events.

What Kinds of Turning-points?

The counter-factual imagination is in fact rather limited. Turning points are almost entirely of a few types. Brian Lowe (2003) categorized 500 books of the historical turning-point genre. Their distribution follows:

32% military: if a war or battle had gone differently;

25% political: if a close election or legislative decision had gone differently;

15% individual leadership: if a famous individual had died sooner, or lived longer;

11% religious: if a religious leader like Luther had died at a different time;

7% technological: if a particular technology had or had not been invented;

6% migration: if a particular migration had not happened;

4% miscellaneous.

The most popular kind of turning-point is military, about 1/3 of the cases. If the Armada had defeated the British, there would have been no Protestant stronghold, and no modern capitalism; if the Union forces had lost the battle of Antietam in 1862, Britain and France would have recognized the Confederacy, the southern slaves would not have been freed, and the United States of America would not have become a great power.

Another set of turning-points (the political, individual, and religious categories above), which add up to about 50%, all hinge on the notion that a shift in leadership would turn institutional arrangements decisively in a different direction. The turning-point causality is overwhelmingly assumed to be military/political; it assumes the power of the state – itself generally taken to depend upon military victory – as able to set all other institutional structures. A secondary theme is that great religions have wide-ranging causal force, but this is almost always connected to the assumption that religions depend upon particular charismatic leaders. One argument is that if Pontius Pilate had spared Jesus, there would have been no crucifixion and no Christianity. A small number of turning-point stories hinge upon technological determinism.

Notice what is not imagined as turning point: not economic changes, since it is hard to imagine broad economic processes as hinging on a particular event. No one appears to think that, say, if Newcomen or Henry Ford or some other individual had not existed, there would have been no modern economy. Apparently this is an area where we know too much about the details of economic history, and are too clearly aware of multiple inventions, competition among rival business firms, and the complex linkages which make up an

economic system. Nor are there prominent arguments for turning points in manners or culture, broadly conceived: it is difficult to construe Elias on the civilizing process, or Mauss and Goffman on the development of the cult of individuality, so as to assert there was one moment when all was held in a balance ready to fall to one side or the other. Similarly with organization. There are no arguments for a crucial turning point in the shift from patrimonialism to bureaucracy; nor in the patterns of kinship structure or even of gender roles. Some feminist thinkers reflecting on archeology have suggested that a turning point might have occurred early on if allegedly matri-focal family systems, with their accompanying female-dominated religious systems, had not been overturned by male-dominated patrilineal systems. Such arguments turn back into military turning-point arguments, since the alleged parting of the ways came when matri-structures were overrun by patri-centered warriors from the central Asian steppes (Gimbutas 1989). But even here, no one has made out a very strong case for a narrow turning-point in kinship systems; the shift to patrilineal structures in virtually all agrarian states societies implies a deeply structural causality.

Counter-factual historians rest their turning-point arguments upon two tacit assumptions: First, that the social world is divided into two kinds of arenas, some of which (military, political, religious) have rapid turning points, and others (economic, cultural, organizational) do not; and that the first type (state power, individual leaders) institutionally dominates the latter. The second implicit causal belief is that political patterns are determined by single dramatic events (a military victory; an election; the presence of a particular leader); and these political patterns, once set, determine economic patterns, and presumably cultural ones. Admittedly, turning-point theorists do not seem to have given much thought to what determines broader patterns of culture; but a line of argument which claims that after such-and-such a turning point, everything is changed or fails to change, also implies that cultural patterns such as manners are appendages to the turning-point mechanism.

Analytically Particularistic Turning-points

Most counter-factual histories chiefly show a negative imagination; i.e. they theorize about how a particular pathway of historical development could have been cut off. We might describe these as analytically particularistic; they assume that if X did not happen, leading to the subsequent events known in the actual historical record, things would have gone on as they had before X. If the

Romans had not been defeated at the Teutoburger Wald, the Roman empire would not have been stopped; presumably it would continue to exist, and at any rate it would have taken up the space which later became Germany. Put in this fashion, the analytical naiveté of particularistic turning point theories becomes apparent. Why should we believe that if the Romans had not suffered a particular military defeat on the German frontier, they would not have been defeated somewhere else? The historical speculation is put forward in the absence of a theory of geopolitics, or systematic consideration of what determines the size, power, and longevity of states.

From a geopolitical perspective, the Roman empire extended its military forces at greater and greater distances from its home base; like all such empires of conquest, it was subject to strains of logistical overextension (Stinchcombe 1968; Collins 1978; Kennedy 1987). The economic costs and organizational difficulties of sustaining and keeping control of military forces at long distance reach some point at which the power of imperial forces fall below that of local opponents. Nearing those limits, the chances of military defeat grows. If not in one place, then in another; if not in one year, then a few years or decades later. And these effects can be cumulative and insidious, slow trends as well as dramatic reversals; a long steady strain of maintaining distant military control can also undermine power; in the case of the Roman forces, this occurred by reliance upon local economic sources of support (such as planting military colonies) and the increasing incorporation of German tribes into the army until it largely lost its Roman identity (Litwak 1976). Furthermore, the effects of reaching geopolitical overextension can put a strain on the entire state; since legitimacy for the ruling elite at home is strongly affected by international power prestige, a dramatic retreat or endless drain on its frontiers can undermine elites, generate fiscal crisis, set elites against each other, and open the way to state breakdown, coup d'etat, revolution, or state fragmentation.

From this perspective, it seems inevitable that the Roman empire would have undergone strains of overextension, no matter what happened at particular battles like Teutoburger Wald. It is sheer historiographical laziness to assume that without the particular event X, everything would have stayed the same as it was before X; this is to act as if there are no general causal forces operative that bring about changes; or that if there were such causal forces in history before point X, that these causal forces would not keep on going after X as well. A large class of turning-point arguments holds that, without X, history-as-we-know-it would have come to an end; everything would have been fixed at point X-minus-1, and nothing ever would have changed thereafter.

Turning-point arguments of this sort often have the character of imagining historical nightmares. What if Hitler had gotten the a-bomb first; or Germany had won the battle of Britain in 1940; or Winston Churchill had not bravely held out; or the USA had not entered the war. The Nazis would have conquered all of Europe; maybe a few enclaves of non-Nazi culture would have held out somewhere in the world (e.g. in North America); but the thousand-year Reich really would last for a thousand years of marching jackbooted Nazis. Is this plausible, as a long-term pattern? This is to assume that the Nazi empire would not be subject to the usual geopolitical processes: logistical overstretch, struggles of domestic politics, succession crises, organizational evolution. If Germany had conquered Britain in 1940, no doubt that would have altered the pattern of the World War. But it is doubtful that it would have determined the pattern of political history, let alone economic and cultural history, a long distance into the future. Given the highly militaristic nature of the Nazi regime, it seems likely they would have continued with further military ambitions until overstretch set in. The Nazi empire would not have lasted for ever, any more than the Roman empire; indeed, given the increasing expense and destructive-ness of modern warfare, there is good reason to believe that the self-limiting patterns of modern warfare set in even more rapidly than ancient warfare (Collins 1986: 167-185).

The notion that history comes to a stop, that everything can be frozen at a particular moment, makes for dramatic story-telling; but it is a rhetorical device, not a serious sociological analysis. Analytically, the mistakes here are two: to assume that casual conditions are pin-pointed, rather than spread out across a wide range of situations which make up a structural pattern; and to assume that causality is rigidly linear rather than stochastic. The counter-factual historian, wearing particularistic blinders, imagines that if the battle of (Teutoburger Wald, Antietam, Britain, etc.) had gone a different way, then everything is irrevocably cut off from a certain path, and must stick to the previously existing path. (If the North had not won the Civil War, slavery would still exist today in the South, since the historian can imagine nothing else that would have eliminated slavery.) What is missing is a theoretical view of the general conditions that bring about a shift in the power of states, conditions which are spread out widely in time and space.

Ironically, the most sophisticated of classic historical sociologists, Max Weber, also made a military turning-point argument. If the Greeks had lost the battle of Marathon, he held, the Persians would have conquered Greece, and the whole process of Western rationalization would have been cancelled. The argument hinges on Weber's point that a self-armed military force is the basis

of citizenship, and this is one of the necessary components of the causal chain which produces legal guarantees for private property, and in combination with a number of other factors eventually gives rise to rationalized capitalism (Weber 1923/1961; Collins 1986: 19-44). Nevertheless, I believe that here Weber is under the influence of his Neo-Kantian philosophical commitments, and does not think through the logic of his own general analysis. The issue of whether Persia could impose its social structures upon the Greek city-states is a geopolitical question. Imperial states of that period were weak in administrative organization, and ruled through local notables; Persia had already conquered the Ionian coast of Asia Minor, for example, where the most prosperous city-states existed, and these continued to exist and run their own affairs, only paying tribute to the distant Persian king. Additionally, geopolitical overextension at long distances from home base makes defeat increasingly likely; if the Persians had won one particular battle on the Greek mainland it would not have made it impossible for Greek coalitions to fight again. And other geopolitical resources were by no means favorable to the Persians: Greek population and disposable economic wealth in 490 BCE was comparable to the Persians; and their armies were made up of coerced foreign troops of doubtful loyalty (McEvedy & Jones 1978). On the whole, the defeat of the Persian empire was not at all surprising; and a longer run of temporary victories would not have changed Greek social structure. In short, for once Weber seems to have been carried away by conventional rhetoric, extolling the battle of Marathon in the same terms as ancient encomiasts, as if it saved all of civilization. Rhetoric of this sort is always a dubious intrusion into sociology.

Stochastic Causality

The particularistic counter-factual historian assumes a causality, but it is merely the causality of the known chain of historical events, spread out like a strip of movie-film. If the film is broken at point X, then obviously nothing can happen after that point, and everything must remain as it was on the film before point X. In reality, most processes are stochastic; if the leaves are not blown down from the tree in one wind storm, they will come down by the time several wind storms have passed; it is the amount of stormy weather that is determinative, not the details of what happens in one particular weather event. Geopolitical theory concerns large-scale processes and patterns which are visible over a period of years; I have estimated on the basis of a survey of long-term change in world political boundaries (Collins 1978) that the minimum

unit of geopolitical change is on the order of 30-50 years, the time it takes for shifts in geopolitical resources and liabilities to bring about changes in state structures. Within this period of 30-50 years, events are indeterminate *from a geopolitical perspective*, that is to say, in making predictions using geopolitical variables.

This time-period is my empirical estimate, based on the actual pace of historical change. Shifts in geopolitical resources (chiefly, the economic strength and population size of states vis-à-vis one another) take up to 30-50 years to translate into policy; a state which becomes geopolitically dominant over its neighbours may not immediately translate that strength into aggressive military and diplomatic action, but it becomes a standing temptation to political leaders to use that resource advantage. The rise of German strength to preeminence on the Continent in the 19th century, for example, was not perceived for a number of decades; France was still regarded as the leading power, based largely upon its old Napoleonic reputation (Taylor 1954). Upon this background, the comings and goings of political leaders, in macro-perspective, are random, but sooner or later someone will come along who will make the move commensurate with the resources.

An instance appears to be the policy of the USA since the fall of the USSR. Since 1990 the USA has clearly been the geopolitical dominant in the world; but it did not use its forces aggressively until 2001-2003. At the beginning of the Bush administration in early 2001, the government's policy was isolationist; but this quickly changed after the 9/11 attacks, which were a severe challenge to US power-prestige, and to the legitimacy of political leaders, unless they answered the attacks. From the viewpoint of geopolitical theory, this is merely stochastic causality; sooner or later it would become politically tempting to use the US military advantage. On a more abstract level, this is the same argument I make above regarding the instability of a putative Nazi empire after its conquest of Britain.

When I argued in 1980 that the Soviet Empire would collapse, I stated that this would happen in the next 30-50 years (i.e. between 1980 and 2010 or 2030); my prediction was correct but temporally imprecise (see Collins 1986: 186-209; 1999: 37-69). This imprecision is a limitation on macro-historical causal forecasting (there are other limits as well, such as empirical knowledge of the condition of the causal variables is often missing); but it should be noted that this stochastic character of geopolitical theory gives it a vantage point from which to see the arbitrary causal claims of particularistic counter-factual histories. The overall balance of geopolitical resources will tell, in the medium and long run; what happens in the short run can accelerate or retard these

processes, but it does not shift the larger pattern. Indeed, I would suggest that the 30-50 year indeterminacy window is a good estimate of how long a particular negative turning point could possibly turn aside the long-term pattern. A victory at Teutoburger Wald might have extended the Roman empire 30-50 years; a Nazi victory at the battle of Britain would have shaped the history of 1940-80 or thereabouts, but increasingly thereafter it would converge towards the larger macro-patterns of actually observed history.

Missed Turning-points are Illustrations of Omni-Causality

Consider one more example of putative turning points. In the scholarship of recent decades, there has been a movement to reconsider the rise of the West in world history. One line of argument holds that (a) China was the wealthiest and most powerful society through the 15th century; (b) China had a large fleet which carried out commerce and diplomatic/military missions in southeast Asia; (c) under admiral Cheng Ho, this fleet reached the east coast of Africa in 1417-1421. A turning-point argument follows: if Cheng Ho had continued to make subsequent expeditions, he could have rounded the tip of Africa from the East, sailed up the West coast, and hence the Chinese could have discovered Europe, 70 years before the Portuguese fleet under Vasco da Gama had discovered the reverse route to India and Columbus discovered America. The turning-point scenario that flows from this point holds that China would have colonized Europe, turning the entire subsequent history of the globe on its head. Instead, the Ming emperor made the fateful mistake of recalling Cheng Ho, disbanding the fleet, and retiring into a seclusive posture that left it vulnerable to Western domination in the centuries to come.

The argument is glib, relying for its force upon its shocking quality, its reversal of the gestalt rather than consideration of causal conditions determining imperial expansion. Let us start at the last point: if a Chinese fleet had reached Europe, what reason would lead us to expect they would conquer and colonize it? Nothing more than a facile analogy to the actual history of Western colonization. But Spain, England and the other European colonial powers established their colonies in lands chiefly inhabited by thin populations of horticultural and hunting/gathering economies, with only a few early state formations (Incas and Aztecs); the position of the putative Chinese invaders of Europe would have had no such imbalance in military and organizational resources. In addition, Chinese forces would have been at an extreme logistical overstretch,

given the economic base for military operations in the 15th century; no sizable Chinese conquest in Europe is at all plausible.

This brings us back to the nub of the turning point, the decision of the Ming emperor to recall his admiral and disband the fleet. This was not merely an arbitrary decision, a fateful bad choice that a 'good emperor' would have avoided; it was itself part of the process of geopolitical overstretch that was already being felt in the Ming state. The fleet was too expensive, relative to other military and administrative expenses, and to existing capacities of tax extraction; and it was politically contentious, especially from the viewpoint of Confucian administrators fighting the strength of court eunuchs (of which Cheng Ho was one) (Mote & Twitchett 1988: 232-236). Put in a more sociological perspective, the failure of the Chinese to consolidate a world maritime empire was the result of normal geopolitical limitations and the liabilities of highly centralized political structure, in which the concentration of state power made it possible to curtail initiative in overseas expansion. The usual way of making this comparison is to note that the parcellized sovereignty of fragmentary European states allowed more variation in exploring new military, political, and economic paths (Wallerstein 1974-89; Anderson 1974); there was more stochastic causality to operate on in Europe than in China.

Examined sociologically, we see that every aspect of this alleged 'turning point' in Chinese and world history has a causal structure. Nothing happened arbitrarily; a single decision would not have taken things in a different direction. If the Chinese fleets had kept going for yet another expedition, it would not have altered world geopolitical balance; certain chains of events would have gone differently, but I see no reason why the large-scale pattern of European expansion and economic innovation would have been altered. If the Ming emperor had not recalled Cheng Ho, he would have faced a worsened budgetary problem; eventually someone else would have come to power and faced up to limitations. Individual decisions are not sociologically arbitrary; they are not a *deus ex machina* that can turn the drama in any direction whatsoever.

Fernand Braudel, at the conclusion of his massive study *The Mediterranean and the Mediterranean World in the Age of Philip II*, having examined every dimension of the setting from the geography, economy, and practices of everyday life through the military and political trajectories of the time, sums up:

What was Spain's 'freedom' in 1571, in the sense of the courses open to her? What degree of freedom was possessed by Philip II, or by Don John of Austria as he rode at anchor among his ships, allies, and troops? Each of these so-called

freedoms seems to me to resemble a tiny island, almost a prison (...) I would conclude with the paradox that the true man of action is he who can measure most nearly the constraints upon him, who chooses to remain within them and even to take advantage of the weight of the inevitable, exerting his own pressure in the same direction. All efforts against the prevailing tide of history – which is not always obvious – are doomed to failure (Braudel 1949/1966: 1243-1244).

The Causality of Individual Personalities

As we have seen, the other favorite of historical imagination, besides battles and expeditions of conquest, is the individual who, by being killed or not killed or elected, makes all the difference. Underneath this trope of historical fiction is the assumption that we already know what that individual will do; the individual is a fixed essence (cf. Fuchs 2001) – Hitler has hitleresque qualities, Churchill has churchillian qualities, Luther has lutheran qualities, etc. that are bound to come out as long as he does not get killed or shunted aside somewhere earlier. The reason we know what those 'qualities' are, of course, is because we know the history as it actually happened; and we read those qualities back into the person before that date. Contra this mode of rhetoric, I will present three sociological arguments.

(1) Individuals play roles in large-scale public processes that are not very unique. Take the argument that if Hitler were killed in the trench warfare on the Western front in WWI, there never would have been a Nazi movement or any of its consequences. In the narrow sense, that might be true. There might well not have been a movement which called itself the 'Nationalsozialistische Deutsche Arbeiterpartei', which adopted the swastica symbol, the 'Heil Hitler' salute, and so forth. But there were a large number of paramilitary movements in Germany after the armistice in 1918; some of these prospered and grew during the Weimar Republic, in part because of lack of government strength to impose law and order; in part because conservative factions in the government siphoned military resources to paramilitaries, and fostered them as hidden forces evading the limitations of the Versailles peace treaty (Fritzsche 1998). The overall pattern was for the right-wing paramilitaries to amalgamate with one another, winnowing out leaders, strategies and symbolic displays until they consolidated through a band-wagon process around an emergent authoritarian leadership. This consolidation did not have to take the form of Hitler and his particular symbolic package; it could have been such organizations as the Freikorps, the Stahlhelm, the Germanenorden, or others. The larger

pattern, the polarization of German society between left-wing and anti-communist paramilitaries and political parties, was due to a larger set of forces; the death of one particular individual skilled at making emotional speeches is not likely to have derailed this process. It certainly would not have turned Weimar Germany into something like British parliamentary democracy.

(2) But what about Hitler's extraordinary charisma, his ability to sway the masses with his speech-making, to impose his world-view on others? The sociological way to approach this is not to deny the reality of charisma, but to explain it. My argument here is not original; I will simply underscore the point that charisma arises in particular kinds of circumstances. Most analysts point to how charisma arises in troubled times, in conditions of social crisis, in disruption of the old social order. I would add a situational condition: charisma is above all a phenomenon of social movement mobilization. Empirically, the charismatic individual is the speech-maker, the person at the center of a crowd that acts as audience and builds emotions by resonating them within the group. Charisma cannot exist without crowds; the conditions which make possible an ongoing series of mass meetings (i.e. social movement mobilization resources, opportunities and frames) is what creates the charismatic leader. In terms of micro-sociological theory, the crowd assembly is an interaction ritual; the leader becomes pumped up with the emotion of the crowd, just as the leader channels that emotional energy back into the crowd (Collins 2004). The leader and the movement are in symbiosis; they exist together.

Charismatic leaders are replaceable; when one is killed or eliminated, another can step into the focus of the movement and take his or her place. An example is the succession to Martin Luther King, who became a charismatic leader when the US civil rights movement built up from the mid-1950s to the 1960s; after his assassination, the slot for charismatic leader was contested by Jesse Jackson and others. Similarly, the militant Black Muslim movement has had a series of charismatic leaders: Elijah Muhammad, Malcolm X, Louis Ferrakhan – each of whom moved into the leadership slot only by eclipsing or replacing another. The chief causal feature is the continuity of mobilizing conditions which promote social movements at this time and place; as long as those conditions continue, the crowd assemblies of the movement provide the conditions for charismatic leaders. The conditions for mass mobilization of such movements does not stay constant over time. The biggest charisma is at the moment when the movement is at its biggest point of confrontation with the enemy; later successors to such leaders (such as those who came after Martin Luther King) are only secondarily charismatic. But early in the growth of a social movement, one fledgling orator is replaceable with another.

The same individual is charismatic only in those circumstances when there is a mobilized and receptive audience. This is illustrated by the career of Mikhail Gorbachev, from apparatchik, to charismatic leader of glasnost and perestroika, to failed politician in the era of Soviet state break-up. The pattern is found in details of the career of Winston Churchill, who was considered a failed politician during the 1920s and 30s; became charismatic in his wartime broadcasts; and lost much of his charisma in peacetime, indeed was voted out of office in the summer of 1945 after the end of the war (Gilbert 1974).

Charisma is one of the most obvious cases where individual characteristics are part of a group phenomenon, where the individual is most patently constructed by social conditions. Except for journalists and historians who think within the naive categories of the charismatic ideology, taking the symbol at face value, it is easy to see the social process by which the charismatic leader is created for that time and place.

(3) All individuals, not just charismatic leaders, are socially formed. I would emphasize that this social character of the individual is not just a matter of childhood socialization, but holds through every moment of his or her life, in all of the person's thoughts and actions. To say that an individual makes a huge difference in world history, making a decision which constitutes a turning point, is not such an impressive argument against sociological determinism, once we consider two points: (a) As I have argued above, the individual decision has consequences only because it takes place in the midst of social structures; the Ming emperor recalling admiral Cheng Ho is acting in the context of geopolitical pressures which are the real determinant of whatever world-historical patterns are in question. (b) Now I will argue that there is a micro-sociological process, so that what the Ming emperor thinks and feels at the moment is determined down to its details.

The argument is easiest to present in the case of intellectuals. The Russian Formalist theorist Osip Brik declared, if Pushkin had not existed, nevertheless Evgeny Onegin (considered to be a poetic masterpiece of Russian literature) would still have been written; if Cervantes had not lived, nevertheless Don Quixote would still have been written (Steiner 1984). These literary products can be analyzed into devices by which plots are formed, rhetorical tropes are used, etc.; and these devices move from text to text. Authors at any particular point in history take the devices that have come down to them from previous texts, change and recombine them in certain patterns which themselves are predictable; the Russian Formalists here gave emphasis to what they called 'defamiliarization', overcoming the sense of familiarity which conventional

devices have acquired (Shklovsky 1929/1990), but we can see other temporal patterns as well.

I have presented an analysis of how philosophers formulate their ideas (Collins 1998). Explaining the majority of thinkers is simple. Less innovative thinkers merely circulate the ideas of major thinkers, like today's followers of Foucault who tell us at length about Foucault's ideas and apply them to particular subjects. The more difficult sociological task is to explain new ideas. But these have a clearly marked sociological pattern, found in almost all cases of major creativity in the world history of philosophy: the most eminent thinkers are located in networks that descend as lineages from past eminent thinkers, and are members of contemporary networks of intellectual movements. Each such movement carries on the cultural capital available from the past generation, but reorganizes its elements, most strikingly by negating a few basic themes and reformulating the rest as a new combination. (An example of this kind of intellectual development is the wave of non-Euclidean geometries constructed by negating one postulate and exploring the new combinations with known mathematics; similar combinations of negations with existing cultural elements are made in non-mathematical areas as well.) New positions are recognizable transformations of old positions because most of the prior conceptual apparatus and techniques of argument are retained, but the whole is taken to a new level of abstraction and reflexivity (see also Abbott 2001).

Another aspect of intellectual innovation is structured by the contemporary struggle over niches in attention space; intellectual recognition comes from leading a line of argument against opposing positions. Important new thinkers always appear in twos or threes, up to a limit of about six rival positions, staking out arguments against each other. Creativity is governed by what I call the 'law of small numbers'; thinkers in any one generation have only a small number of niches (typically three to six) which will give recognition. The biographical process of making an intellectual career, then, is a matter of formulating one of the distinctive new positions before they are all taken up. The most successful thinkers, starting at the core of the old network as it transforms into new intellectual movements, are those who have so thoroughly internalized the structure of intellectual rivalry that they can make 'coalitions in the mind'; their thinking is laden with the emotional resonances of ideas which carry symbolic membership in factions of the intellectual field.

The intellectual world shows again the processes of constructing individual identities that I have described above in the case of charismatic leaders of political and religious movements. The individual thinker who successfully occupies one of the few niches in intellectual attention space becomes a

representative of a larger social movement consisting of intellectuals who are recombining the same kinds of ideas and negating the positions of the same rival factions. He or she – the 'great philosopher', in the present case – has more rapidly and cogently than others assembled available cultural elements into a coherent new position; but it is a position that many others share, and many are capable of articulating. The death of any putatively great philosopher early in his or her life makes no difference to intellectual history, because someone else will be energized to combine much the same elements of cultural capital into a new position.

Because of the limited attention space, many other thinkers become blocked by the shadow of one individual's success. The psychological divergence between the leading thinker and those secondary thinkers who fall behind in the race for public attention, results in shaping their personalities in distinctive ways: the leader growing increasingly full of emotional energy, confident and enthusiastic about applying his/her techniques of thinking to available problems; the secondary contenders becoming increasingly bitter, alienated, de-energized. The details of personality, across different phases of career chains, are deeply social products as well. There is no personality 'essence' which exists throughout an individual's lifetime; and the patterns that get called 'personality' can be analyzed sociologically from one year to the next – indeed, down to time-periods which can be made as fine as we can investigate as micro-sociologists. What an individual thinks is sociologically explainable, not merely in the aggregate in terms of general categories that persons use, but in the particular sequence of thought down to the level of a particular thought-event.

At this point, my argument become programmatic. I have examined the thinking of certain kinds of intellectuals, but have not systematically treated other kinds of thinking. But it is not entirely in the realm of mere theoretical speculation. It is possible to take particular empirical instances of thinking, much in the way that micro-sociologists analyze the structure of a few minutes of conversation, and to show how the internalized conversation which makes up verbal thought is determined (Collins 2004; Wiley 1994). The processes which determine who thinks what thoughts in what particular times and places differ by various social locations; intellectuals occupying places in a particular field of cultural production (Bourdieu 1993) differ from non-intellectuals, and the latter think particular kinds of thoughts in sociable situations, as compared to economic and political ones. I leave this vague for the present publication (for an extension of this model to thinking in non-intellectual situations, see Collins 2004).

But let me close the circle of the argument about the sociology of turning-points. A particular politician makes a particular decision: on such events, the turning-point historians argue, hinge wide divergences in world history. I have already argued against the glib sense of what allegedly becomes diverted downstream from this decision. Here I want to note that there is an upstream causality, which determines what the politician in that situation is thinking. He or she thinks in words and images, which flow through his or her mind, as part of a longer chain of symbolic utterances; the internal conversation that makes up thinking at *this* particular moment is part of a chain of conversations, that have taken place both with other persons, and inside one's mind as conversations among parts of the self; and the chain is oriented towards an ongoing flow of conversations in the future. All instances of thinking are embedded in a series that I call 'interaction ritual chains'. The concepts that individuals have to think with, the grammatical and rhetorical devices for formulating utterances, and the emotional resonances that makes some of these pieces of cultural capital salient or remote, all are results of varying degree of success or failure in achieving social solidarity in the prior chain of interaction rituals. Some thoughts come easily to mind in particular times and circumstances, while other thoughts do not appear; that is because they have emotional resonance, analogous to emotional magnetism for the social situation, which attract or repel particular kinds of thoughts. Thoughts are assemblages of social symbols and devices, and these have a particular history – a biographical trajectory – for each individual because of his or her social experience in interaction ritual chains.

This is true for politicians as well as for everyone else. He or she considers a decision by using concepts circulating in a social network; he or she formulates ideas by a personal style of thinking which has been shaped by the emotional energies of their special trajectory through a series of interaction ritual chains. What the individual thinks at that moment is not free-floating or mysterious. The closer we get as sociologists to the details of how thinking takes place, the more it appears as determined, indeed inevitable.

Bottleneck Theories

Most turning-point arguments, I have suggested, are sociologically naive. A few arguments, however, are highly conscious of sociological processes of causality. It is because of an explicit theory of causality that an argument can be constructed that there is a narrow bottleneck, an historically limited set of circum-

stances, that must be traversed for a major causal sequence to unfold. The prime example of a sophisticated bottleneck theory is Goldstone's (2002, 2005) theory of the origins of industrial capitalism. Goldstone's theory might be classified as a version of military turning-point, which is linked, by an explicit causal theory, to technological developments downstream. Thus it is an example of the small number of counter-factual histories which argue for the consequences of a particular technology not being invented; in this case, Goldstone presents a detailed argument as to why the invention of the steam engine was crucial for setting off the industrial revolution. This is a downstream theory; he also has an upstream theory, as to what social conditions brought about the invention of the steam engine. These social conditions being cut off, the key technology would not have developed, and hence the industrial revolution, which had to flow through this bottleneck, would not have come about. Goldstone constructs a sociological theory for the existence of the bottleneck.

Since Goldstone gives a clear picture of the causal sequences, it is possible to examine and critique the turning-point argument at several points along the line. One segment of the argument holds that a shift in the winds could have delayed the Dutch fleet from landing William of Orange's forces; the king would have retained sufficient military supremacy to reinstate catholicism, and thus parliamentary democracy would have fallen under renewed conservative despotism. Of course it is possible that if the Dutch fleet had not landed that month, or that year, the parliamentary forces still would have won the rebellion; to settle this question would call for assessing military and political resources on both sides. The larger issue becomes clearer if we grant more generally that some contingency transpires that enables the king to put down the rebellion. But here we must invoke what general theory we have about conditions for parliamentary power vis-à-vis royal despotism. As Goldstone himself has shown in earlier work, state breakdown occurs under fiscal problems and elite splits; monarchical despotism is no bulwark against such weaknesses in control. Moreover, as Tilly (1990), Downing (1992) and others have shown, parliamentary resistance to state encroachment on aristocratic privileges is successful under particular conditions of geopolitics and state financing. I will not attempt here to assess the conditions in England that would apply from 1690 onwards, but only to note that there is nothing in our theories which makes it automatic that royal despotism would have been able to roll back parliamentary power, and reestablish Catholicism against a well-institutionalized structure of Protestant social organization; foreign assistance received by the English monarchy from other Catholic powers would have run

up against a tradition of anti-Catholic nationalism which had been forming around a Protestant identity for the past century. At a minimum, there would have been considerable conflict in England under a Catholic monarchy; here we may invoke the stochastic model to propose that such a regime would not last indefinitely.

Let us put this in less particularistic terms. Call it 'Catholic', 'Protestant', or any other name, the issue is what kind of church structures have what sorts of power in a world of states. A centralizing state church does not automatically win out over a dispersed propertied elite, especially in a regime lacking a non-gentry civil service, and thus dependent upon the elite status group for its own administrators. Another set of limitations are on the geopolitical level. A supra-national church rarely maintains a united front across an array of national states. State consolidation, since the 13th century, has produced a long series of splits in the trans-national church; Papal rule – or even loyalty – was never successfully imposed for long, and what moments of ascendancy it had were with the backing of one of the major kings. This had the reflexive effect of turning other states in an anti-papal direction, whether in heresies or merely assertions of local administrative autonomy. The notion that victory over Protestantism would have established a uniform and unshakeable Catholic despotism thus runs contrary to a long-term pattern.

Coming forward in time, I will focus on one other segment of the causal chain. Goldstone puts forward a coherent theory of the industrial revolution, based on the combination of a movement of empirically-oriented scientific experimenters and another movement of economic entrepreneurs. Both of these flourished in 18th century England, among other reasons because parliamentary government allowed freedom for these activities, and the decentralized elite gave them prestige. The point I would like to take up is what would have happened if these conditions had not existed in England.

Was England uniquely the bottleneck through which the industrial revolution had to pass? Goldstone devotes considerable scholarly effort to showing that China and Japan did not have the networks of scientific researchers meshing with entrepreneurs of similar social rank; thus East Asian societies could develop highly marketized economies but remained limited by organic energy sources; they could not pass the technological /entrepreneurial barrier that led to the industrial revolution. Nevertheless, is it plausible that neither Japan or China, nor any society in the West, could ever put together that combination of social conditions? Goldstone makes a very sweeping argument: the bottleneck was indeed historically passed, but only once, in 18th century England; if that particular passage was cut off, then the entire world would still

consist in marketized but essentially medieval advanced organic economies – not just today, but into the indefinite future.

This part of the argument seems stochastically unlikely; the conditions for scientific networks have not been so rare in the history of the world; they were quite widespread in Europe, and also at various times in the Islamic world, and on occasion in China (Collins 1998: 532-556). Granted, these networks were often not connected with other networks where they could have combined with mundane technological developments, or with economic entrepreneurs; but the latter types of networks also existed in various places, if not in combination with networks of scientific intellectuals. Putting them all together is just a stochastic combination; and the chances of this happening do not seem to me so remote that it could have happened only once in a thousand years (or indeed, given the logic of Goldstone's argument, only once in many thousands of years). The latter is a version of the rhetorical flourish of cutting the historical film so that it has no future; in a world where stochastic processes dominate, it seems to me quite likely that if the 18th century English combination of networks had not taken place, a similar combination would sooner or later take place somewhere else, or for that matter in England at some other time.

Although I tend to believe that Goldstone's arguments for a narrow bottleneck of causality leading to the industrial revolution are overstated, they serve in several ways to sharpen our understanding of the processes of historical change. His turning-point arguments are superior to most because he explicitly theorizes the different components of causal sequence. This makes it possible to test his putative turning-points; since we can bring to bear a body of theory on each causal linkage (such as the conditions for parliamentary regimes or monarchical despotism, the conditions for different sorts of networks and for their combinations), we can examine the plausibility of missing-factor or blocked-condition arguments. The result of such examination, I believe, will often be that we will see alternatives to what appear to be narrow bottlenecks. But such a result is not a foregone conclusion; our analysis may in fact tell us where bottlenecks do exist.

The Possibility of Turning-points in World History

There may well be real turning-points, places where causal sequences do hinge on very special conditions. Turning points are of three broad types, one of which I will call pseudo-turning points, the others real historical bottlenecks, including extreme disaster.

A pseudo-turning point is one which deflects a given development away from the historical path that we have come to know in retrospect. But here what gets deflected is merely some particular details. Substantially the same kinds of processes occur, generating the same kinds of structural change, but under different names, at different dates, in different places. Fascism could have come without Hitler and without Nazis; it could even have achieved its most dramatic form in other countries (the substantial instances of non-German fascisms are analyzed in Mann 2004). The same sort of thing is true of virtually all big institutional changes. The long term process by which the modern state appeared: the military revolution in size and expense of permanent forces; the development of state tax-extraction apparatus; state penetration and destruction of autonomous patrimonial households as citizens are inscribed in the bureaucratic institutions of the state; the effects of these upon the civilizing process of manners – all these processes are massive and long-term; the pattern by which they fail in one place, succeed in degree in another, is part of a long process of selection and emulation, as organizationally more powerful structures win out over others (Elias 1982; Goudsblom, Jones & Mennell 1989). Whether the people who first do this speak French, German, or English, or whether contingencies are such that they speak Japanese or Spanish, is the subject-matter of particularistic histories; but the underlying pattern, which makes up the knowledge of sociological theory, cuts across all of them.

Of a different type are real historical bottlenecks. Here the sequence of causal conditions is of the kind where a combination of structural developments, each of them specialized and rare enough on its own, must come together if some major historical transformation is to take place. Goldstone's theory of the industrial revolution is such a theory of rare structural combinations. It contrasts with the theory of the modern state, which has been developed by a number of scholars (Elias, Tilly, Mann, and others) as a theory of a broad development across a wide front; states which do not make the move are selected out, absorbed or marginalized by those states which move onwards towards permanent tax extraction and state penetration. If this were true, we find outselves with a peculiar theoretical contrast: the modern economy depends upon highly contingent, specialized combinations of events; the modern state depends upon widely distributed processes moving like a flood tide. My estimate would be that religious and other cultural developments have more of the character of broad evolutionary flow rather than bottleneck. Bottlenecks may exist, but apparently not in all institutional spheres.

There is one more kind of turning-point, far too serious to be called a mere bottleneck. Such are civilizational catastrophes which destroy everything. A

nuclear war (a very real possibility in the years between 1955 and 1985) would have destroyed most of world population, perhaps even brought on a nuclear winter destroying most higher forms of animal life; it would be an enormous turning point in evolution. But even this is not entirely without a larger causal pattern; over the long evolutionary time scale, species become selected out as ecologically unfit, and entire ecological chains can change drastically. A nuclear war would be the human race selecting itself out.

On the human scale, too, a nuclear war fits within a common pattern of social causality. Geopolitical processes go through cycles of periodic simplification, as cumulative advantages of resources and geographical position divide a region increasingly into two large imperial powers; at these times, the ferocity of warfare increases, and civilian casualties increase both for terroristic effect and in efforts to destroy the enemy's economic base (Collins 1978). Threat of nuclear war, arising in the context of the massive confrontation of Soviet and American forces, and as the culmination of a century of increasing all-out targeting of economic resources, fits geopolitical theory all too well. Fortunately, there were other processes in the geopolitical package (chiefly differential overextension of the two major powers during the 1970s and 80s) which kicked in before the mutual destruction which is one of the historical patterns of such confrontations. Nuclear war would be a civilizational turning point, but not an arbitrary one.

Historical sociology, in fact, has begun to formulate some very general features of civilizational catastrophes. Tainter (1988) collects a number of instances from the archeological record, and argues that social complexity itself increases the chances of a breakdown, in conjunction with a crisis in environmental carrying capacity. Civilizations have disappeared before, although these have largely been confined to horticultural regimes. And these have been piecemeal extinctions of particular cultures and people, not the extinction of human life on the planet; contemporary with these extinctions, the general pattern of human civilizational growth has continued. Thus we might even expect that a nuclear war would not necessarily divert the course of history, seen in the sufficiently long run. If there were any human survivors (perhaps in the southern hemisphere after a war in the north), they would not necessarily return, as the cliché goes, back to the stone age. It is quite possible that, given enough time for recovery, the organizational forms already achieved would be reestablished and built upon. Five hundred years after a nuclear war, the history of human societies might well still be on the same long-term trajectory.

My conclusion, however, is that we are not yet in a position to decide whether history is full of causal bottlenecks, or whether they are rare or non-

existent; or if they exist, whether they are more common in particular institu-
tional areas (the economy?) than in others (the state? culture?). We can assess
the strength of a turning-point theory only if we have systematic theories of
causal processes, in all their components. We know enough about mili-
tary/geopolitical and state development processes to assess the turning-point
arguments which have been so common in this dimension. Here – apart from
rare civilizational catastrophes – the verdict seems to me negative; at best these
are pseudo-turning-points, changing minor particulars of historical names and
dates, but unfolding the same kinds of structures. For other areas such as
economy and culture we have not yet reached this kind of theoretical coher-
ence, and turning-points arguments in these spheres (rare as they are) remain
to be responsibly judged.

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