As the first two essays differently concluded, we cultivate ourselves, and make our knowledge and our authorities fit with our cultures. How do we do that? It is now imperative that we identify, if we can, the principal elements of our social negotiation and transaction systems - the ways in which we cultivate both our knowledge and our authorities.

The focus of this essay is war. Wars are a human invention. Fights happen in nature, but not wars. War is what happens when our negotiations and transactions break down or decay into organised and communal physical violence, as attempts at social coercion, or community domination or elimination. Historically, wars were about control over physical resources and territories. But the planet is now sufficiently well (or over) populated that this primitive motive must now be underpinned and over-ruled by attempts to control hearts and minds, and their associated cultures. Even if they have not always been, wars are now culture clashes. Consequently, to understand wars, we need to consider the ways in which cultures emerge and change. Only then can we understand how their social transactions might break down or erupt into conflict.

Social beliefs and institutions evolve through negotiations and transactions. Here, with Douglass North, I use 'institution' to mean our accepted rules, norms and codes of behaviour, and the associated attitudes to threats to these social authorities. Wars result from either major conflicts between competing institutions, or as eruptions of internal frictions within institutions. We left the argument, in the first essay, with the assertion that there are four principle sorts or phyla of social institutions: consent, contract, coercion and convention. The second essay recognised and illustrated a fifth - that of cognition, which we frequently take so much for granted that we ignore it, though at our peril. We now need to consider how these institutions might have arisen in human societies - our social systems.

We can liken North's institutions to strings of Richard Dawkins' and Susan Blackmore's memes, as the social genetic codes of behaviour. Like genes, they will betray their ancestry. As with complex life forms, we may expect developing societies to exhibit characteristics associated with their evolutionary past.

Evolution of social institutions

Evolution is a flow process, and can be thought of as happening in phases or waves. Each phase consists of a set of principles (or motive forces) underlying the observable structures and patterns of the archetypal community or ecosystem - the society types and associated transaction systems (communism, capitalism, tribal or feudal systems etc.), as the phyla of institutional forms. An evolutionary process operates to condition the progress from one phase or wave of the flow system to the next.

Some now believe we are at such a cusp of institutional evolution. Wars, then, might be a thing of the past, or future wars might be unlike anything we have known in the past. But substantiation of this claim requires a conjecture as to the natural progression of institutional phases. We thus need to begin at the beginning of human life as we now know it, to identify a possible evolutionary taxonomy of principles and the phyla of institutional forms as we trace our apparent history.

Life minds and responds

Non-living or inanimate things simply exist and react to (and thus with) their environments and neighbours. Living systems are different. Living things mind what happens to them and respond to what happens to them. Living systems thus adjust and adapt to their surroundings and generate an evolutionary system as a consequence. The structures which emerge are the phyla best fitted to the changing environment and habitats. Human life is, according to this elementary description, no different from other forms of life.

Human Tribes care and reply.

But human life not only minds and responds to what happens to it; it cares and replies to what happens to it - Max Weber's position in a nutshell. Caring implies at least a primitive love for fellows (and its natural antonym - hate). Caring implies some corresponding if rudimentary belief or value system. Human life is proactive rather than simply a responsive process. It is proactive because it perceives a 'self' as distinct from 'other', and thus recognises others' existence, likely responses, and thus rights. Roles become established amongst members of a tribe and hierarchies are formed, with rights, responsibilities and duties assigned and habitualised at each social level in the tribe. Social values thus emerge and become codified in the emergent phenomenon of early tribal rites, customs and religions. The culture of the tribe necessarily involves specialisation of function, and thus trade between members of the community. The intuitive but conscious acceptance of Adam Smith's invisible hand of specialisation and trade becomes embodied in community relationships, with tolerance of distinctions, roles and hierarchies, and commitment to the associated responsibilities and socio-psychological contracts - barter, in short.

The innate and autonomic rules of biological survival and reproduction thus become augmented by conceptual codes and conducts, founded on rudimentary belief. Our early ancestors simply could not have survived and prospered (as they obviously did) in a fundamentally capricious and frequently antagonistic environment without both self-belief and, as a necessary consequence, social (and environmental) belief and trust. Humans are naturally and irrevocably dogmatic - that is how we began.

Our ancestral hunter-gatherer tribe, therefore, is our most primitive and deeply ingrained institution, largely based on faith and consent. It is a condition to which societies are likely to revert, if and when more advanced institutions fail. Tribal warfare will thus be a condition we can expect in any human system, when consent or love collapses and hate takes over. I need not, I think, spend time elaborating on the numerous examples here, except to note that tribal warfare is typically territorial - it is about command over resources and territory, including (or excluding) other people as necessary. And it is likely to involve pissing round the boundaries.

However, caring and replying are not sufficient to distinguish human life from higher forms of animal life. Higher animals are also sentient in that they are able to distinguish between 'self' and 'other' in at least a rudimentary way, and thus 'care' about what happens to them in relation to what happens to others. Not enough to go to war, but certainly enough to fight. Dogmatic dogs are commonplace.

Communities recognise and relate

Human life has moved beyond simply caring and replying, to develop cognition - conscious knowledge and understanding. Cognition involves recognising social and natural environments and relating to and with this recognition through the development of inferential knowledge about ourselves, our societies and our environments. We humans are therefore also naturally reasonable and relative - that is how we began to grow up, if up it be, and with our dogs as well.

Conscious inference and cognition are more obviously particularly human characteristics, reflected in human brain to brawn ratios. From such conscious thought and its application to the local environment emerged the early cultivator community, as opposed to more primitive hunter-gatherer tribes. In effect, inferential reason is used to develop new conscious and social rules - you scratch my back, and I'll scratch yours. These rules then become enshrined in dogma for the purposes of training, taming and civilising the emerging human population. Recognisably human institutions thus emerge, as communities with consciences.

And, of course, we come to different conclusions from our consciences - and we generate conflicts as a result. Ideological warfare is the outcome of community conflict, and is deeply ingrained in our social evolution. It separates us as humans from animals, which also demonstrate barter behaviour. We elevate our inferential reason to a different cognitive plane and create ideologies from our ideas. Its character is well exemplified in civil war - Northern Ireland, the Middle East, and elsewhere. Such conflicts, like their tribal counterparts, seem particularly deep rooted and difficult to solve.

Re-cognition (*sic.*) of the processes of human system development requires that the participants at least submit to the implicit or intuitive rationale of these systems. We consciously adapt and adjust our behaviours to best fit this apparent (but not yet articulate) rationale. Or we flee to somewhere else less contested - a common response when the planet seemed large enough. Or we fight.

Recognition and relation thus leads us to charity in our community relations and specialisations - as the conscious and cognitive acceptance of the capacity of the community and its practices to be benign and welfare-improving. Or, of course, as being the exact opposite - malevolent and welfare-threatening, thus requiring substantive and cognitive opposition. Which generates the intolerance and bigotry so common in ideological warfare, whether physical or socio-political.

There is a curiosity in our past. Our evolutionary history as humans is much longer than is betrayed in our present genetic diversity. There must have been a severe reduction in our ancestral numbers deep in our past for this to be so. Might the severe reduction have been partly caused by a primevil world ideological war? If so, might our apparently ingrained feelings of superiority and arrogance stem from the victory of our ancestors?

Once and if resolved, however, the second rung of the invisible hand mechanism is now in place - acceptance through mutual respect for the activities of others as being in the community as well as personal interest. Adam Smith's major contribution was to articulate precisely this story of the wealth of 'nations' (better, communities), though lacking the insight of the Origin of Species, which did not appear for another 100 years. Thus, by

adolescence, the human race has become charitable or communitaire, as well as dogmatic and reasonable.

Societies rationalise and reason

But there now emerges the chance of a new phase. We begin to progress from 'simple' inference to rationalising the way things are and reasoning that things could be different. We begin to conjecture and invent. Instead of merely copying past (and largely accidental) best practice, we begin to try and understand why best is best and to try and make it better. We become more careful, and elevate care as a response to caring as a transaction and transformation system. We develop and reconstruct our tools, institutions, organisations, habitats and environments. We now have a recognisably different sort of community, which we might label a *society*, reflecting the particular character of this stage in institutional evolution as embodying more organised and conscious association. In short, we develop civility - the natural counterpart in social development of the skills of cultivating the natural environment.

But rationalising and reasoning are more speculative activities than demonstrated inference. They are frequently wrong. To indulge in this phase requires that we be pretty secure and relatively prosperous in our current existence. Otherwise, perhaps, only an apparently innate curiosity will drive invention, with a more primitive and deeper instinct for inference likely to dominate.

However, either scarce resources or community ambitions for more rapid growth will augment this natural (paternal) curiosity, and mate it with (maternal) necessity, to produce rapid invention. Or the other way round, it hardly matters. Human history provides ample evidence of this phase of institutional evolution, strongly suggesting that rationalisation and reason can only take root and thrive in well-established, mature and relatively secure communities, requiring sustained self-belief as a precondition. Otherwise, societies collapse to communities and tribes - the "Dark Ages". The evidence in parts of the former Soviet Union is all too clear to see.

Economies expect and rely

But, once we have learned to invent and become more or less accomplished at it, another set of motive forces begins to take over. We come to expect that things both can and will be better, and to rely on our abilities to make it so. Economies are born. Our societies become more adaptive and responsive, and thus potentially more chaotic, than before. Leaders now require a demonstrated entrepreneurial talent of spotting new potential and making it possible, as well as (or in place of) a more charismatic talent for 'mere' persuasion and conviction of fellows. The primitive authority of the previous phases' leaders is now undermined, dissipated and threatened as never before.

In the event that the new entrepreneurs cannot realise their ambitions here, they exit from their parent societies and start again somewhere else: to form colonies. Our society has now evolved to a recognisable market economy, expecting and relying on outcomes as a consequence of contracts and formal exchange; specialising and trading (again echoing both Weber and Smith).

States concede and respect

But, the diffuse authority of the pure market economy is typically insufficient on its own to be socially sustainable. There are too many bosses. The indians and slaves they seek to command are also too numerous. There are too many losers. But, at least in successful economies, losers are also increasingly independent of the basic struggle for survival. They become more interested in their own individual prospects, and (increasingly) disappointed in the constraints and deprivations forced on them by the more primitive of the entrepreneurial chiefs. The indians gang up and the slaves unite, and invent the state and associated government to defend and promote their causes. And the more enlightened of the chiefs join their causes and seek to promote their prospects.

The echoes of Marx's analysis in this brief synopsis should be clear, but with a twist. There remains on both sides of the emerging modern political conflict a deeper understanding (albeit mostly inarticulate and instinctive) of the processes of social evolution - the innate notions of symbiosis and circular flows of income and expenditures and the more primitive concepts of mutual dependency. The emerging modern state is necessarily an uneasy and complex mixture of the previous phases of the evolutionary history.

'Ocracies coerce and demand

But there is an important third element to the emergence of the market and state duality - the necessary synthesis between the thesis and antithesis for persistence of society. The laws which glue these two systems together need to be socially legitimised. The methods are evident in our histories. We either more or less willingly submit to autocracy or plutocracy, or try to erect a benevolent dictator and submit to the resulting bureaucracy, or, in desperation at the failures of these attempts, turn to democracy. And we search, apparently in vain, for the method of inserting some genuine meritocracy into these institutions. Reconciliation of private and public interest is a major and, as yet, substantially unanswered question. We are still searching for the 'ocracy which is not only better than all the rest, but is demonstrably and credibly the best there can be. We are, in other words, still struggling with the age-old problems of how to exercise free will and choice in sustainable and mutually re-inforcing ways. This, in my interpretation, is the meaning of the search for so-called third ways.

The result, then, is an inescapable and concrete mixture of economy and state, underpinned by the circular economic flows and stock accumulations, and their necessary mechanics. This concrete necessarily requires the steel reinforcement of public acceptance of coercion - the laws and regulations, the associated taxes and re-distributions, the formal and constitutional institutions and so on. The long arm of the law is necessarily attached to the invisible hand to enforce market contracts and protect property rights.

It is nearly inevitable that this same apparatus and institutional arrangement will also be used (and abused) to remedy the failures of both market and state, and to re-incorporate the loss of previous institutional bargains. And it is nearly inevitable that a single system of coercion (the law and constitution) will be incapable of satisfying the multifaceted and multidimensional demands of the legitimising political constituencies. Modern political conflict and competition between state/market systems is the inevitable outcome.

The nature of post-modern (western) culture clash

Societies which have reached and more or less matured into this stage are convinced that to revert to earlier forms of institutional arrangement and culture clash are necessarily retrograde. They thus seek to persuade, bribe, and if necessary and apparently affordable, coerce, other typically materially poorer, and perceived more primitive and backward societies to grow up and behave. They seek to become the world's policeman and judge, yet without the internal conviction and commitment to pursue such ambitions to their logical conclusions.

The end of the cold war has transferred the critical conflicts over private versus public decisions of justice, equity and harmony from the aboriginal battle over geographical territory to the much more important struggle over the hearts and minds of people. Here, mastery over their reproductive organs can only ensure grudging submission and temporary consent. Longer term sustainability requires conviction of belief rather than to penitentiary or slavery. This, at last, is the fundamental lesson of the collapse of the United Socialist Soviet Republic (a lie in every word). Belief in the system is necessary for its operation, never mind its promise of optimality. Such belief cannot now be extended through appeals to economic reason, since the reason on which market optimality and democracy is based is partial and thus flawed. Hence our politicians begin to sound and act as preachers rather than teachers, and typically end up preaching only to the already converted - species which may be becoming somewhat endangered as the societies and communities they hope to attract to their church fragment. This is the apparent present evolutionary status of the "common model" - that law, democracy and a reasonable market system are all that we require.

Meanwhile, at home and within the common model societies, things are becoming more chaotic. Much of the frustration with our modern mixed economies stems from the realisation, conscious or not, that nothing serious can be changed in this complex and interactive amalgam without bringing into question major adjacent and related parts. Institutional change and progress tends to ossify for fear of the genuine uncertainty of real change. Consequently, public relations and presentation takes over from public participation and substance. As Arrow predicts with the impossibility theorem of democratic and rational voting behaviour, we go round in circles, while bemoaning the logic of the vortex.

We revert, naturally, to earlier forms of social institutions - the tribes, communities and societies of our ancestry, but re-dressed and re-formed to fit with the state-economy-democracy triad. This, it seems, is as neat and concise an explanation as yet exists in the exploding literature of the twin features of our western common model - globalisation of market/state/law systems and fragmentation of societies and communities into tribes. We either submit meekly to the ruling hegemony, or demand that it takes better care of our own cherished aspirations and necessarily special interests. Meanwhile, we claim the right to our individualities and peculiarities as enshrined in both democratic and consumer sovereignty principles. We breed potential wars - but wars over ideas and institutions rather than wars over peoples and territories. Our cultures are rife with subclinical but chronic conflicts, in spite of our theories (at least in economics and implicitly in democracy) of social optimality.

The consequences of extreme failure of this co-evolutionary emergence is all too obvious in the condition of many of the emerging market economies of Central and Eastern Europe and the newly industrialising countries. If our evolving institutions cannot resolve this difficulty,

they will self-evidently collapse and fragment back to local societies, communities and tribes, with the former Yugoslavia as a tragic and brutal example.

A recapitulation of the western condition

The brief parables of the previous paragraphs can be seen as an outline of the necessary conditions for successful human civilisations. In a sense, they repeat Fukuyama's argument of "the end of history?" But they do not signal an end to war. Far from it. The processes of social evolution outlined here clearly contain major possibilities for conflict both within each phase or wave and between each phase. Our histories are full of examples of all types, as we might expect, since the history now seems long enough to have included sufficient time and space for even rather improbable events to have happened.

Until now, the human race has been fortunate. It has had the room to make very substantial mistakes and failed experiments at the development of societies. And it has been clever enough to invent technological fixes for some of what are ultimately social problems (mass starvation being one obvious example). But no longer. We have now run out of room for escape or expansion without being very clearly and definitely at substantial others' expense.

Yet we now believe (at least in some parts of the west) that we have got so clever and wise that we can either convince or bribe everyone to ascribe to our own beliefs and values, or so rich and independent that we can afford to ignore everyone else, or else so clearly and obviously right (and thus superior) that we have a duty to enforce our values and codes (if not our founding beliefs) on everyone else, with clean and minimal warfare, and limited collateral damage. We should be so clever.

But, to police the world requires a global law, and global respect for that law and its enforcers. Otherwise, attempts to enforce a partial law can only spawn new conflicts, and will encourage new ways of retaliation. No force on earth, however great, can make a line which shall be absolutely straight. Our legal lines in the sands of human conflicts will be bent and will oscillate and vibrate. And will set up counter-vibrations and conflicts both in the societies we seek to straighten out, and in our own as we seek to exert a necessarily common force. Little do we know of the little we know. If we continue to believe and behave thus, we are in a position to answer Fukuyama's question in the affirmative, and more dangerously, to make it so. For the end of history in a flow system is, simultaneously and irrevocably, the end of future as well.

A conjecture on Necessary and Sufficient conditions for Institutional Sustainability

The 'motor of historical change' as outlined here is incomplete. It cannot be regarded as sufficient for sustainable success, as any intelligent, informed and rational contemplation of our current condition testifies. To identify the sufficient conditions, it is necessary to pursue the evolutionary parable of institutional and social development beyond these necessary (or historically observed) stages.

It is possible to conceive, in principle, of governing institutions and practices which could convert the population to *reverence* rather than mere respect for their government, and thus to their practically unanimous assent to governmental control over their lives and futures. This must be the goal of those who espouse and champion the common model espoused by world leaders through, for example, NATO and the UN. Otherwise, such systems will

generate retaliation and conflict both within and between communities, well evidenced in our current condition.

Empires question and re-search

But, consider the world which we might seek - the one in which there <u>is</u> universal assent to our common model. What would it look like? Such unanimity, even if achievable, is not likely to be stable. As people devote time and energy to contemplation rather than the mundane issues of survival and prosperity, so the community's institutions and practices will be questioned and intelligent thought and re-search will be undertaken, in the hope of discovery of more generally beneficial, acceptable and sustainable rules and procedures (as well as territories). In other words, our meritocracy would need to develop to an empire to be sustainable. And star, or cold, wars are the likely outcome of clashes between such empires.

As and when this research is directed towards social institutions rather than physical and biological support systems, resources or tools, however, it necessarily undermines the conventions of the revered government, market and legal systems. The evolutionary process has made our institutions ever more massive, thus requiring ever more effort and trauma to shift or change. In turn, these present systems can only be sustained through the imposition of particular ideologies and principles (gravity, if you like) on the associated constituencies by current leaders and rulers. These people and their congregations will necessarily defend and protect their local power-bases to ensure their own continuation. Institutional research or thought which does not fit with existing ideologies will tend to be resisted, underfunded and ridiculed - isolated in other intellectual planets or solar systems.

So far at least, empires, like stars, typically collapse or burn up from within, rather than being defeated from without. They either behave so profligately and selfishly that they consume their own seed corn and starve to death, or their necessary internal cohesion fragments as their necessary social-belief and commitment dissipates in a welter of questioning and self-assertion. This is how the cold war ended. This is how the Greek and Roman empires folded. This is how, even yet, the western common model might dissipate.

It is possible, however, to suppose an ideal, though dynamic, outcome in which the population can become convinced that all is for the best in this best of all possible worlds. This, at root, must be the ultimate goal of post-modern thought and rationally intelligent criticism, if these are not contradictions in terms. In such an idealised state, one can imagine a fully committed population, willingly and enthusiastically merging its own self-interests with those of the community in near unanimous harmony - the communist ideal in a nutshell.

Civilisations imagine and re-create

A penultimate phase of institutional evolution then becomes possible, in which a significant fraction of the population engages in creative imagination of how things might be even better and more harmonious, and is engaged in continual re-creation of the community and its environments, with the full support and commitment of the whole community in these endeavours. Such societies could reasonably be described as being driven by the pursuit of curiosity and fun - where imagination and re-creation appear as scholarship or as play. A genuine civilisation would then be born. The conversion of an empire to a civilisation is clearly not easy. Have we yet witnessed any genuine examples?

Cultures believe and trust

The end result might be one in which the whole community is convinced and assured of the benevolence of their world - not as the best of all possible, but as capable of building and growing the best of all possible - secure in the knowledge and understanding of they ways in which their worlds work compared with all the possible ways in which it could work, and completely self-assured that they and their communities can continue to develop and improve their lives indefinitely.

In short, such societies can be characterised as having a common faith in the ultimate benevolence of their communities, and an associated freedom to doubt (and hence question and seek to change) the rules, rulers and power-bases, in the common belief and trust that such activity will be regarded as perfectly legitimate and respectable, complete with open and transparent means of exercising such activities. In short, a careful charity. We could, perhaps, label such an institution as a sustainable culture. Heaven on earth?

The proto-typical institutional evolutionary cycle has now come full circle. The careful charity of the 'last' phase now underpins the 'foundation' phase of human cognitive and institutional evolution - the love, care and reply phase of the early tribes, generating the necessary consent to community. There is no beginning or end to this cycle; there is no first or last step to human happiness. There is only a meta-process offering progress towards more complete lives and worlds; threatening to malfunction or dissipate into chaos when the tolerances of each phase are exceeded without the necessary foundations and counter-balances of the parental and offspring phases being in place.

In Conclusion - The real world

Of course, this is a fairy story. However, it seems more than possible to trace the history of successful civilisations according to this prototypical evolutionary process of phase changes and developments, and also to identify collapse and revolution of civilisations in these terms. In short, if communities do not follow this progression, and are not capable of sustaining the momentum of the evolutionary progression, they will collapse in some form or other to previous phases - just as a Mandelbrot fractal collapses when it exceeds its tolerance limits. And wars will be the result.

However, if approximately legitimate, this process of institutional evolution implies that the apparent hegemony of Economics, Politics and Law (especially as embodied in the common model) is unsustainable. Barter, habit and fear are insufficient grounds for progressive human development. Yet, to a very large extent our national and international institutions rely only on these fundamentals, as expressed neatly in the common model and its derivatives.

If this story is approximately correct, the common model in anything like its present form cannot possibly be sustainably saleable as the final answer, either in markets or in the council and legislative chambers of the world. It is simply not in our genes or memes. And the <u>more</u> educated and informed the world becomes, the <u>less</u> likely is it that we will be able to get away with the pretence that we can. If we persist in believing that training and education in the common model is all we need to do to secure universal acceptance, we condemn ourselves to extinction. This, at last, is a counter-intuitive result, isn't it? It suggests that there is a logic here which is worth pursuing. Can we afford the risk that it is not?

We need, then, to look more closely at this common model - the notion that trade coupled with democratically controlled justice is the root of either all our troubles or the foundation of the only sustainable future for the planet and us, its people. We need to move to the fourth movement in this quintet.

4,994 words.