

Ethnogenesis and the Technosphere

An article first published in New Scientist

‘Ahead of us are Darwinian shakeouts in every major marketplace, with no consolation prizes for the losing companies and nations’. ‘Get better, or get beaten.’ ‘Neutron Jack’ Welch, chairman of General Motors, is both right and wrong in his assertion. It is an evolution of the most brutal kind, although not necessarily Darwinian. There is also a neo-Lamarckian element: a transmutation involving blended inheritance or acquired characteristics, that must ultimately destabilize the homeostasis sustaining many of today’s political and socio-economic institutions.

The popular use of the word ‘evolution’ is, of course, misleading. It is a shorthand way of describing the effect of an explosion of localized *co-evolution* on one particular category. (Since I am considering the evolution of a ‘culture’, an ‘ethnos’, I use the word category rather than species, to avoid linking these ideas too closely with Biology.) Nothing evolves independently. Every small change in what is being categorized will impact on the local environment. This triggers changes in other local entities, that could be cultural, biological and technological. These feed back, and change the original category; and so on, and so on. In most cases the society simply dissipates the ensuing stress (negative feedback). Eventually, however, the accumulation of tension becomes so great that a positive feedback is unleashed, and the society fragments (let’s not call it a sub-speciation). Some fragments become extinct, others thrive, possibly by cross-integrating with yet more, but previously-foreign, fragments, to form a new stable whole, a new society: ethnogenesis (Leo Gumilëv (1990) *Ethnogenesis and the Biosphere*, Progress Publishers, Moscow).

Such are the dynamic conditions local to natural selection in the socio-economic landscape. There will be inevitable and substantial variety within the broad categories co-evolving, because there are significant variations in the localities where the punctuation mark of co-evolution is situated. A particular form of category-mutation will win in one place, another elsewhere.

The term natural selection in this context is a tautology, since it is the very fact of survival of a mutated category that defines the rules for arbitration. What we perceive as the rules underlying natural selection themselves change along with the transmutation of categories. Thus what we claim as an explanation is merely a new description, formed in hindsight, of what has become necessarily so.

Such rules can only ever be vague generalizations. We glean them from experience, from observations of things we chose to identify as a category, within a locality we have arbitrarily designated. However, these are things that will co-evolve into things different from the original categorization and designation. Hence, every categorical description is an error of choice; an irrefutable error accepted as truth by force of repetition, and a choice, made habit by orthodoxy.

The reason I stress the Lamarckian component is that the constituent parts of this co-evolution are not arbitrary genetic mutations *a la* Darwin, but the result of both conscious and sub-conscious choices. Here human judgement and preferences are exercised by individuals and communities in the quest for political, social, economic or cultural goals. Tools, ideas and ideologies are then communicated to succeeding generations. Each category is itself a

phase of continuous Lamarckian co-evolution, where the socio-economic environment repeatedly triggers human action that acts directly on social structures, and vice versa.

Since the dawn of history, technology has changed and been changed by society. Human society either side of each invention (gunpowder, the printing press, clockwork, the production line, the steam engine, the railway, the aeroplane, the telephone, television, the credit card, the computer and a million and one other tools) may bear no relation to each other. In advance of any innovation there is no knowing whether societal tensions will trigger a negative or a positive feedback. Gunpowder was invented in ancient China, but it made little social impact. Yet it brought about the end of medieval European society. The steam engine was invented in ancient Greece, where it was a novelty. Yet it stimulated the Industrial Revolution in eighteenth century Britain.

It bears repeating: all social categories are errors of choice. So there can be no 'rational' construction of a society's future. However, there has been no shortage of social engineers intervening in the co-evolutionary process. Consider eugenics: improving(?) populations by interfering with sociological development patterns. The term, meaning 'well born', was coined by Francis Galton, a cousin of Charles Darwin, who was worried that the 'lower classes' were outbreeding 'decent people'! Attempts range from the most sinister to the fairly benign, even comic. Mensa, the organization for people with, if not high intelligence then at least, high IQs, set up a sperm bank to help women give birth to 'genetically superior babies'.

Medical technology has also been used to limit (rather than improve!) populations. Some experiments fail, as in India, where since the 1960s men were given transistor radios after a vasectomy. Some experiments succeed, but with totally unexpected side-effects. In 1980, the People's Republic of China started its programme of one child per family. It was readily accepted among urban Chinese, however, families wanted their one child to be male. Following ultra-scans, 97% of abortions were of female foetuses. What will the Chinese population of twenty years hence, distorted by self-obsessed 'Little Emperors', look like?

In my new book, *The New Barbarian Manifesto*, I claim that information technology too is driving us, unwittingly, toward a discontinuity between successive equilibria in human societies. IT has changed the nature of work: the job for life, born in the Industrial Age, has gone. Jobs can be automated, or exported: a billion new workers have joined the global workforce. Labour has become a commodity, and must compete on price. Who knows what the workplace is, now that we are teleworkers: anywhere we plug into the network? With electronic money becoming increasingly liquid, will governments be able to collect taxes? Can liberal democracy, another product of the Industrial Age, survive? etc. etc.

Is telecommunications technology spawning new communities? If so, I contend that the evolutionary forces will not be Darwinian. Lamarckian evolution doesn't leave the future to chance. That future is conjured up in the technosphere by alchemies of vision: tools and ideas liberally mixed with determination. Unfortunately for all types of evolution, the cosmic joke of natural selection ensures that there can be no prior certainty regarding which categories will win and which will lose.

Ian Angell is professor of Information Systems at the London School of Economics.