Why an understanding of socio-political history and path-altering junctures is necessary to achieve sustainable prosperity

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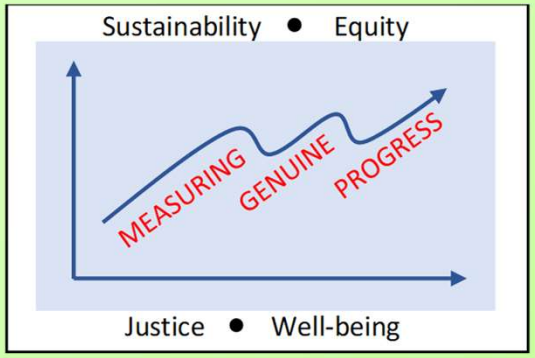
Measuring Genuine Progress



History as a coevolutionary process

- **Historical works are descriptions of a coevolutionary process – they not only describe events, often in chronological order, they highlight:**
  - **key moments/junctures in coevolutionary processes to explain why systems move in a particular direction (trigger points/thresholds/bifurcation moments)**
  - **key factors (negative feedback mechanisms) that maintain the stability of a particular system in the presence of external chaos and change**
  - **key factors that drive a particular system and/or destabilise it**
- **They attempt to explain why things are as they are (were) and how past events/processes have contributed to the way things are (were)**
- **Historical analysis is important**
  - **It allows us, with hindsight, to identify essential moments/events, both path-altering and path-stabilising**
  - **It helps us explain and understand why and in what way a pathway is undesirable/desirable**
  - **It helps us recognise functional requisites of a society and its economy at particular moments in time (note: functional requisites may come and go over time)**
  - **It helps us identify what we must do to change things for the better, and in ways that are less likely to destabilise important systems**
  - **It allows us to identify opportunities/possibilities and constraints/impediments**

What is coevolution?

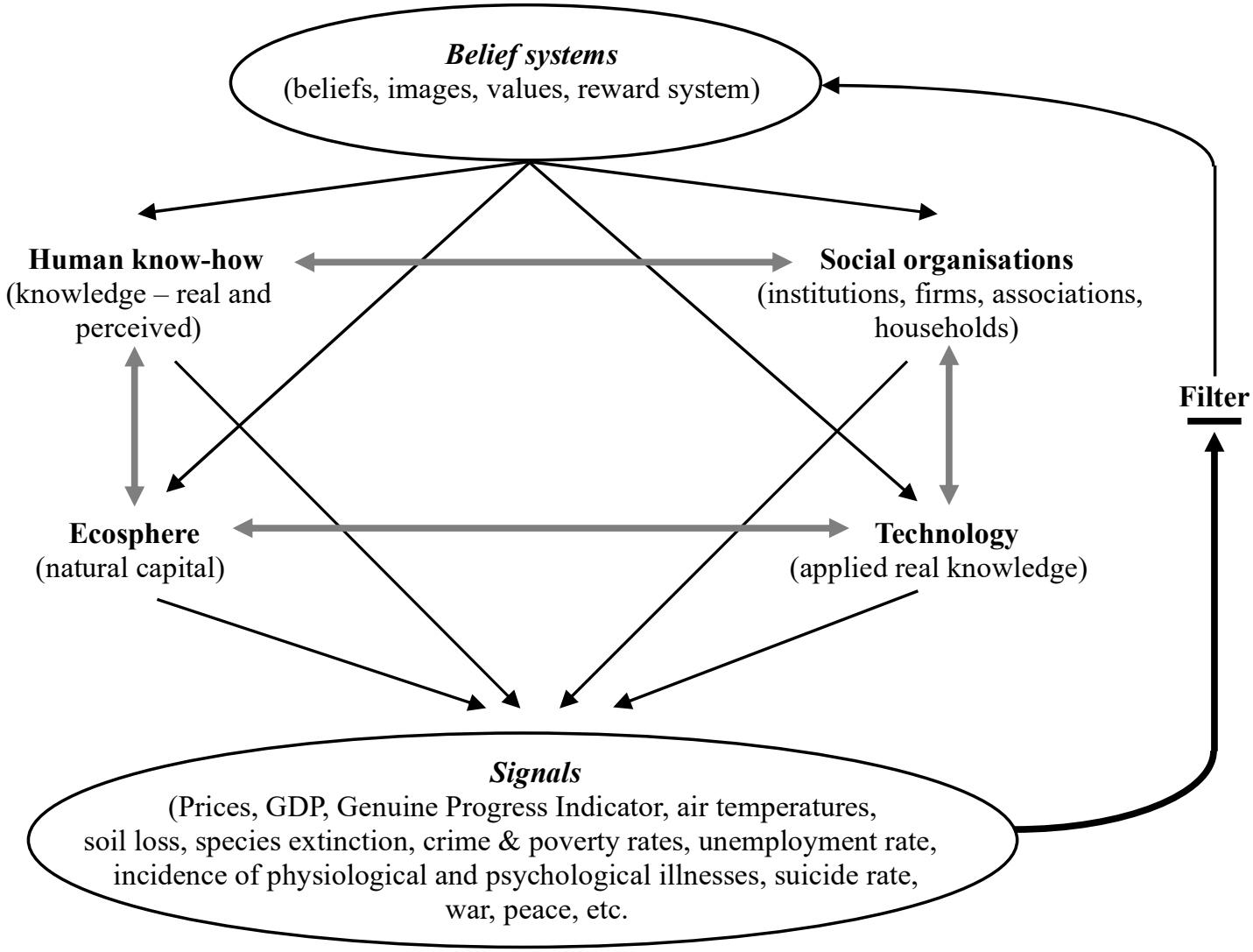
- We live in a world characterised by (co)evolutionary processes
- Processes are not atomistic and mechanistic (A-M), as described by Cartesian (Descartes) and Newtonian physics
- The universe's components are distinct entities rather than separate entities disconnected from everything surrounding them – I am a distinct entity (a unique human being), but I am not disconnected from my surroundings; indeed, I am reliant on them
- Because different parts of a system are changing, some more rapidly than others (some very slowly, seemingly indiscernibly), and each part affects another part of the system (some more than others), components of a system coevolve, often symbiotically
- *Symbiosis* – an interactive relationship between two or more systems or two or more components of a system
- There are three types of symbiosis:
  - *Mutualism* – where two or more components benefit from the relationship
  - *Commensalism* – where one component benefits from the relationship and the other components are largely unaffected
  - *Parasitism* – where one component benefits at the expense of one or more components (when the relationship is biophysical, parasitism is often unsustainable; within a socio-economic setting, parasitism is precarious and ultimately destructive)

What is coevolution?

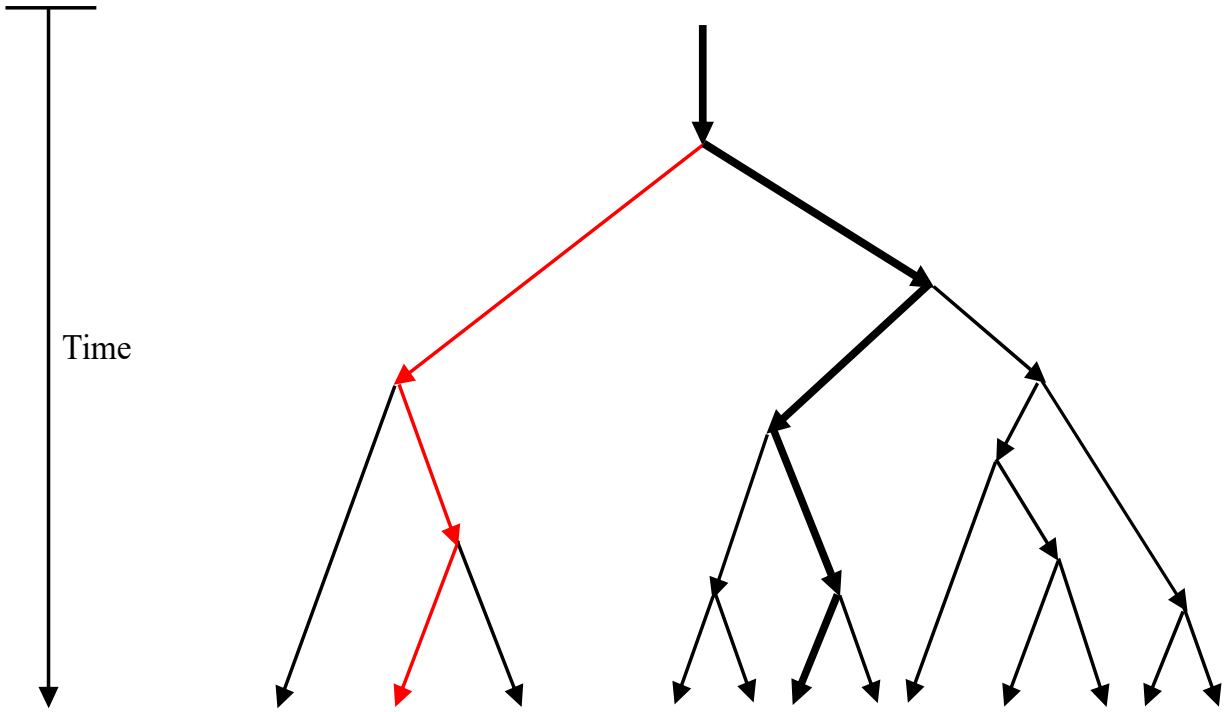
- **Features of coevolution (not in order of importance):**
  - ***Path-dependency*** **(P-D) – history matters!**
    - **P-D limits the range of possible outcomes – it never precludes choice**
  - **Coevolution is powered by energy and involves the transformation of matter – all coevolutionary processes are subject to the 1st and 2nd laws of thermodynamics**
  - ***Disequilibria***
    - **There is no such thing as equilibrium – indeed, equilibrium is a mythical Newtonian atomistic-mechanistic concept**
    - **Stability is a form of *homeostasis* (stability despite a chaotic and changing set of external circumstances and forces)**
    - **Note: homeostasis is only possible in the presence of suitably designed and sufficiently powerful negative feedback mechanisms**
  - ***Irreversibility***
    - **A particular situation occurs once – it is impossible to return to a previous state/set of circumstances**
  - ***Holons***
    - **Systems are *holons* – they exhibit the independent and autonomous properties of a 'whole', whilst exhibiting the dependent properties of a component of a larger whole – e.g., economy is dependent on the ecosphere**
  - ***Ignorance***
    - **A coevolutionary world view recognises *ignorance* as well as risk and uncertainty**
    - **Ignorance – where the possibilities of an event and the probabilities of each event are unknown; limits our capacity to predict the future**

What is coevolution?

- **Features of coevolution (not in order of importance):**
  - ***Feedback*** **– is a process where a system regulates itself in response to recursive outputs generated both endogenously (within the system) and exogenously (by other inter-related systems)**
    - ***Positive feedback***
      - **Where inbuilt mechanisms amplify the impacts of internal and external outcomes/events – inherently unstable and ultimately destructive**
    - ***Negative feedback***
      - **Where inbuilt mechanisms dampen impacts of internal and external outcomes/events – inherently stabilising (necessary for homeostasis)**
      - **Stable systems are *resilient* – they have inbuilt negative FB mechanisms to maintain stability/homeostasis; however, outcomes in stable systems are not always desirable, and outcomes are rarely optimal**
  - ***Coevolutionary change over time***
    - ***Very short run*** **– homeostasis (genotypic and phenotypic stability)**
    - ***Short run*** **– adaptive change (genotypic stability/minor phenotypic change)**
    - ***Medium term*** **– somatic change (minor genotypic variance/major phenotypic change)**
    - ***Very long run*** **– mutation (genotypic change, usually triggered by a threshold or tipping point being exceeded/complete phenotypic alteration)**
    - **The speed of coevolutionary change depends on the prevalence and strength of NF mechanisms, which can slow down the rate of change – conversely, PF mechanisms can hasten the rate of change (may lead to bypassing of stages)**



A coevolutionary world view (Adapted from Norgaard, 1992, p.80)



Bold = actual pathway
Red = most desirable pathway

Representation of possible coevolutionary pathways of a system (Adapted from Mokyr, 1992, p.9)

Power of the 'State' and State apparatus

- **Regardless of what type of society one is talking about, power *always* rests with the State and the State apparatus. By this, I mean:**
  - **State rules, laws, penalties (executive 'government' and judiciary) regarding and affecting:**
    - **ownership and entitlements (property rights – individual property rights not always present)**
    - **obligations of society towards its members and of its members towards society – reciprocal obligations**
    - **roles of individuals in society (sometimes free to choose one's role)**
    - **imposed constraints on the rate of resource use (not always present)**
    - **means of distribution (reward system) – who gets what?**
    - **institutionalised status of individuals/class system (not always present)**
    - **means of resource allocation (not always present) – most appropriate mechanism to allocated real resources to produce goods prior to being distributed to society's members**
  - **Military and law enforcement agencies**
  - **Civil bureaucracy (State administration)**
  - **Political and collective institutions regarding the means of representation (not always present – not always truly democratic)**
    - **Parliament**
    - **Unions**
    - **Guilds and associations**

Power of individuals and organisations

- **Power of individuals and of individual organisations rests with who 'captures' State power and the State apparatus**
  - **I believe democracy is an illusion**
  - **Since the advent of agriculture, whereupon many hands were freed from production, the power of the State has been captured by psychopaths/sociopaths**
  - **The State and its apparatus have been used to further the interests of sociopaths (who became the institutionalised 'elite') at the expense of society's best interests**
  - **The extent to which the masses have gained 'control' of the State – i.e., have had the power to exploit the power of the State to further society's best interests – has varied over time (weak to very weak)**
  - **Following the advent of agriculture, the masses had little or no control of State power – State power was used by the elite to impose tyranny (usually enslavement) as a means of human and real resource management**
  - **Over time, and given that tyranny is inherently unstable, the elite has been forced to make increasingly more concessions to the masses to maintain social stability (some degree of social homeostasis) in order to maintain its power and wealth advantages (claims on society's bounty) – that said, neoliberalism (institutionalised chrematistics – a reconfiguring of State power) has been a recent reversal of this trend**
  - **Only the min. required concessions are ever granted by the elite/rich & powerful**
  - **Modern political institutions were created as a concession to the masses but were designed to permit ongoing State capture by the rich and powerful – in a sense, a truce between the emerging rich industrialists following the Industrial Revolution and the institutionalised elite (aristocracy)); they fail to give the masses the necessary and democratic control of the State to further society's best interests**

All societies are 'capitalist'

- **All societies, from hunter-gatherer, agrarian, industrial, and post-industrial (if ever achieved) societies are capitalist societies**
  - **All societies depend on natural capital – all are therefore capitalist societies**
    - **Ecologically sustainable societies confine resource use/waste generation to rates within the ecosphere's regenerative and waste assimilative capacities**
  - ***H-G societies***
    - **Possess very little human-made capital – they consume much of what the ecosphere provides (primary trophic level output) and transform very little matter-energy provided by natural capital to human-made goods (minimal secondary trophic level output)**
    - **Are organised around *oikonomic* principles – based on the sustainable and effective management of society/economy (human household) recognising the need to operate within ecological constraints (Nature's household); H-G societies are a pure form of 'communism'**
  - ***Industrial societies***
    - **Possess a lot of human-made capital – they consume very little of what the ecosphere provides (primary trophic level output) and transform a lot of matter-energy provided by natural capital (and natural capital stocks) to human-made goods (large quantities of secondary trophic level output)**
    - **Rely heavily upon the use of inadequately regulated modern markets and are organised around *chrematistic* principles – based on manipulating resources for personal gain irrespective of whether it is society's best interests**
    - **Since chrematistics often entails the depletion of natural capital, it is anti-capitalist!**

Analysis of an historical (coevolutionary) process

- **An account of human history:**
  - ***Human beings began as hunter-gatherers***
    - **Communist**
    - **Reward system based on contribution to society not possessions (reduces incentive to free-ride)**
    - **Sociopaths ostracised**
    - **Virtually all primary trophic level output**
    - **No modern money or markets; tribute bot no taxes**
    - **Stable societies (homeostatic)**
    - **Based on oikonomic principles**
    - **Crude and harsh existence, but everyone's full spectrum of human needs (as per Maslow's needs hierarchy) are met**
    - **Intimate knowledge of local environment**
    - **No metallurgy; no writing**
    - **Simple institutional structure**

  - ***Agriculture* (11,000 years ago in Fertile Crescent)**
    - **Agriculture began where conditions were amenable to agriculture (climate, geography, domesticable plants and animals) – nothing to do with intellect**
    - **Of the 12 crops that dominate global agriculture today, 7 of them grew naturally in the Fertile Crescent (a small area of the Earth's surface)**
    - **Was agriculture inevitable? Yes**

Analysis of an historical (coevolutionary) process

- **An account of human history:**
  - ***Agriculture*** **(11,000 years ago in Fertile Crescent)**
    - **Increased productive capacity – supported larger populations, towns & cities, States and empires**
    - **Freed hands of people – knowledge/technology grew; writing, accounting, and pre-modern money emerged**
    - **Required more complex institutional structure to manage human resources**
    - **Led to rise of frictions and factions – saw the rise of the sociopath (growth became possible and an objective of the sociopaths)**
    - **Led to rise of tyranny – society potentially unstable**
    - **Winning factions became the elite; losers became the enslaved; sympathisers became the bureaucrats and members of military and law enforcement agencies (slave overseers)**
    - **Rules of distribution changed – concentration of wealth and power amongst the elite**
    - **Material quality of life improved for a minority**
    - **Life was worse for many (widespread immiseration) – worse than H-G societies; full spectrum of human needs went unmet**
    - **Based on chrematistic principles**
    - **Increase in primary and secondary trophic level output – most human-made goods were distributed to the elite; infrastructure established to operate the production system, not to benefit the masses**
    - **Is agriculture a functional requisite of a society more complex and sophisticated than a H-G society? – Yes**

Analysis of an historical (coevolutionary) process

- **An account of human history:**
  - ***Modern money (and taxation)*** **(5,000 years ago)**
    - **MM and taxation was introduced as a means of transferring real resources from the private sector to the public sector without the need for tyranny**
      - **Taxation created a demand for the Emperor's currency (MM)**
      - **People offered the Emperor their labour and sale of goods to obtain the currency to extinguish their tax liabilities – the Emperor spent the currency into existence**
    - **MM freed the hands of more people – a small bureaucracy was all that was required to operate the taxation system**
      - **Knowledge and technology grew**
      - **Productive capacity and military power increased**
      - **Empires that introduced MM subsumed those that didn't; many empires had to introduce MM to avoid takeover – MM spread**
    - **Required an even more complex institutional structure to manage human resources and taxation/govt spending system**
    - **Further increased primary and secondary trophic level output**
    - **Eventually the currency-issuer spent more of the currency into existence than was needed for plebs to pay taxes – it accumulated in the hands of plebs as 'savings'**
      - **Plebs could offer to work for, or sell something to, a possessor of savings rather than work for the Emperor in order to obtain the currency – pre-modern markets were born**

Analysis of an historical (coevolutionary) process

- **An account of human history:**
  - ***Modern money (and taxation)*** **(5,000 years ago)**
    - **Material quality of life increased for many people – more people had more of their full spectrum of human needs met, but most still lived in poverty**
    - **Tertiary trophic output (services) increased**
    - **Usury emerged – completed the inadvertent role of MM as a spending time machine (to go with inadvertent role as medium of exchange)**
    - **Strong institutional class system – feudalism in Europe and similar systems elsewhere (e.g., Japan)**
    - **Increasing concessions needed to be made by the elite to maintain stability and power/wealth**
    - **A weak form of democracy emerged as rising wealth spread (was distributed) to more members of society**
    - **Religion played an important role in justifying wealth and class differences (misery was justified)**
      - **Most religions considered wealth accumulation a sin**
    - **Rising wealth of the elite and lack of necessary concessions led to the demise of some empires**
      - **Contradiction – wealth accumulation was considered a sin, yet the elite grew richer (growing antagonism towards the Catholic Church)**
      - **Social/economic system increasingly based around chrematistic principles**

Analysis of an historical (coevolutionary) process

- **An account of human history:**
  - ***Modern money (and taxation)*** **(5,000 years ago)**
    - **Colonialism emerged**
      - **Empires spread to other continents**
      - **Takeover of H-G societies**
      - **Guns, Germs, and Steel (Jared Diamond) – overlooks the important role of MM and taxation**
    - **Was the introduction of MM and taxation inevitable?**
      - **I believe it was**
      - **The need for increased productive capacity and military strength as empires expanded and clashed, plus the need to grant concessions to maintain social stability (including the need to reduce tyranny as a form of human management) required an alternative form of human management and means of transferring real resources from the private to the public sector**
    - **Is MM and taxation a functional requisite of an increasingly complex and sophisticated society? – Yes**
      - **Public goods to maintain the system (infrastructure) and meet the rising demands and expectations of the plebs demands the use of MM and taxation**
      - **A modern society requires a spending time machine to enable people to spend less than they earn (save) and spend more than they earn (borrow) – hence, usury is necessary, although whether the State or private banks should engage in usury is another matter**

Analysis of an historical (coevolutionary) process

- **An account of human history:**
  - ***Protestantism in the West***
    - **Rising antagonism towards the Catholic Church led to a religious reformation in the 16th century**
    - **Irony – Protestantism elevated wealth accumulation to that of a virtue rather than a sin; it also led to the rise of the Protestant work ethic (all part of God's divine plan)**
  - ***Enclosure Movement***
    - **With wealth accumulation now a virtue, Enclosure Laws were introduced across Europe to increase agricultural productivity**
    - **Serfs were denied access to the Commons – this was one of the most extreme forms of institutional deprivation ever introduced**
    - **People were forced to engage in markets – they were subject to whims of pre-modern market forces**
    - **Technological advances were made, productivity improved, total wealth increased, but the lives of many did not**
    - **Many people lived in greater misery and poverty**
    - **Few people had anything like their full spectrum of human needs met**
  - ***Industrial Revolution***
    - **Eventually the harnessing of steam power triggered an IR**

Analysis of an historical (coevolutionary) process

- **An account of human history:**
  - ***Industrial Revolution***
    - **Led to rise of privately-owned nodes of central planning (oligopolies and oligopsonies)**
      - **Why? Mass production was made possible but most effectively and efficiently conducted by NofCP (co-operation)**
    - **Led to rise of modern markets – buying/selling arrangements that link NofCP**
      - **Why? Central planning has its limits – as a problem or task becomes more complex, it needs to be broken up so that a NofCP focuses on one aspect of the total task**
      - **Modern markets allow NofCP to be effectively and efficiently linked**
    - **Problem**
      - **As price-setters rather than price-takers, oligopolies and oligopsonies operating in an economy replete with modern markets have considerable market power**
      - **Without adequate regulation, they can abuse their market power to engage in rent-seeking (chrematistic) behaviour**
    - **The rise of wealthy industrialists was a threat to the aristocracy**
      - **Political concession in some countries – emerging wealthy industrialists have control (capture) of the Lower House to enact legislation to support and justify their chrematistic behaviour; the aristocracy have control of the Upper House (House of Lords in UK)**
      - **Where such concessions were not made, the bourgeoisie led a revolution to overthrow the aristocracy (e.g., France)**

Analysis of an historical (coevolutionary) process

- **An account of human history:**
  - ***Industrial Revolution***
    - **Mass production and consumption eventuated – Although the material standard of living of many increased, there was still great poverty and misery, plus rising pollution and sanitation problems as urbanisation took off**
    - **Concessions to the masses consisted in the form of rise in public goods, although this was undertaken largely to maintain social order and prevention of the breakdown of the system from pestilence, etc.**
    - **For many, the full range of human needs were woefully unmet**
    - **Internationally, increased levels of colonialism subjected people in distant nations to new forms of misery as a means of supplying cheap natural resources/slaves to power and resource the growing levels of secondary trophic level (manufacturing) output**
    - **The need for cheap and abundant natural resources was due in part to the depletion of natural capital in Europe**
    - **There was a further increase in tertiary trophic level output, but still a small part of total economic output**
    - **Was the IR inevitable? – Yes, an IR was inevitable, although an IR was only possible once technological know-how reached a required level**
      - **IR could have occurred centuries earlier had cultural and institutional constraints been removed much earlier**
    - **Were NofCP and modern markets inevitable? Are they functional requirements of modern, complex, and sophisticated economy? – Yes, in both instances; once an IR was inevitable, so was the rise of NofCP and modern markets**

Analysis of an historical (coevolutionary) process

- **An account of human history:**
  - ***Early 20th century***
    - **Clash of various Western European, Eastern European, and Eurasian Empires led to WW1**
    - **1920s – chrematistics on steroids (Roaring 20s)**
      - **Some fared well; most still missed out (huge wealth and income disparities)**
    - **1929 stock market crash – led to 1930s Great Depression**
    - **WW2 – unfinished business from WW1**
    - **Implications of GD and WW2 not long after WW1 – unprecedented back-to-back global events**
      - **A lot of the wealth of the rich was destroyed**
      - **Many industries were nationalised to win the war**
      - **The rich/elites lost a lot of their power, including their capture of State power**
      - **Global moral shock treatment**
      - **People who had made great sacrifices demanded a share of the existing and new wealth created after WW2, and a well-paid job!**
  - ***Post WW2***
    - **With the masses having unprecedented control over State power, there was massive investments in PGs (health, education, transport, and communications – all equitably distributed) and a full employment policy**

Analysis of an historical (coevolutionary) process

- **An account of human history:**
  - ***Post WW2***
    - **With the A war of sorts remained – the Cold War (a mixed economy dominated by modern markets and private ownership (including private ownership of large NofCP), based on chrematistic principles versus a centrally-planned economy with little private ownership and rejection of markets based on oikonomic principles)**
      - **Both had aimless growth for growth's sake as their prime objective**
        - **Didn't meet full range of human needs, as people recognised in the late-1960s and early-1970s (counter-culture)**
        - **Was dependent on fossil fuels – oil for transportation; cola for electricity (ecologically unsustainable)**
        - **Required a plan to transition from a growing non-renewable resource-based industrial economy to a steady-state renewable resource-based post-industrial society focused on qualitative improvement and not quantitative expansion (growth)**
      - **Weaknesses of chrematistic economy – lack of market regulation and eventual reduced emphasis on distributional equity meant it sowed the seeds of its own destruction, which we are now witnessing**
      - **Weakness of communism – fails to recognise the functional requisites of modern markets and private ownership (didn't get past first base)**
      - **Communism is a laudable but flawed attempt at achieving oikonimia in a modern, sophisticated economy**
      - **Chrematistic won the Cold War but also flawed**

Analysis of an historical (coevolutionary) process

- **An account of human history:**
  - ***Early-1970s***
    - **Oil price shock/stagflation/**
    - **Rise of neoliberalism (institutionalised chrematistics)**
    - **Inadequate response to need for transition to a sustainable SSE based on oikonomic principles**
  - ***Where from here?***
    - **Oikonomic principles**
    - **Recognition of functional requisites of a modern, complex, sophisticated economy – namely, MM and modern markets (which need to be appropriately regulated)**
    - **Reclaiming State power by the masses from the sociopathic chrematists?**
    - **Just transition to a SSE**
      - **Sustainable scale (including sustainable population numbers)**
      - **Distributional equity (including full employment)**
      - **Allocative efficiency**