

Reclaiming Rationality and Scientific Method

The Life-Coherence Principle as Global System Imperative

By Prof. John McMurtry Global Research, October 05, 2010 5 October 2010 Theme: History, Science and Medicine

Summary

This paper explains what has long been missing across domains and levels of analysis: (1) the life-blind inner logic regulating the dominant paradigms of "rationality" and "scientific method"; (2) the reasons why it selects for unforeseen consequences of ecological, social and economic collapse; and (3) the life-coherence principle which identifies and corrects the derangement.

Contents

- 12.1. The Nature of the Rising Global Crisis and Why It Cannot Be Seen
- 12.2. Recognizing the Connected Disasters and Their System Causal Mechanism
- 12.3. The Ultimate Decider: Society's Rule System Decides Life as Better or Worse
- 12.4. The Driver of the Ruling System: Self-Maximizing Rationality with No Life Ground
- 12.5. The Regulating Sequence of System Rationality and Its Alternative Step By Step
- 12.6. The Hidden Mechanism: Private Financial Subjugation of Society and the Academy
- 12.7. Prisoner's Dilemma and Game Theory: The Paradigm of Scientific Rationality
- 12.8. The Underlying Incapacity of Critical Responses to the World Disorder
- 12.9. The Failure of Rational and Scientific Method to Understand Global Collapse
- 12.10. The Unexamined Problem of System-Cooked Science
- 12.11. The Life Coherence Principle: The Missing Ground of Scientific Rationality

12.1. The Nature of the Rising Global Crisis and Why It Cannot Be Seen?

Humanity's governing rule system has generated a fatal contradiction. There is a deepstructural contradiction between its life-means support-system requirements, on the one hand, and the global system of private money-sequence and commodity growth, on the other. It is not, as Marx taught, a contradiction between productive force development and capitalist relations because both grow in technological tandem while the world burns. It is a deeper contradiction of the ruling system with life and life support systems themselves. The meaning of this crisis has been tracked throughout this study from 1.12. The Life-Blind Nature of Modern Economic Rationality and 1.14. The Axiological Sequences of Money Capital and Life Capital through 9.10. Above Public and Market Rules: The Money-Sequence System Disorder to 11.5. The Unseen War: Goods for Corporate Persons Are Bads For Human Persons and 11.12. Absolutization of the Ruling Rights System Overrides Life and Life Support Systems.

The reigning system is governed by private money-sequence growth as determining goal, and more priced-commodity yield growth is its justifying performance. Yet both of these ruling principles of value gain cumulatively violate life requirements at organic, civil and ecological levels. Although calls for a steady-state or no-growth system increase as the negative externalities of system growth destabilize the life of the planet, these rising calls usually remain stuck within the old concept of growth. Unlimited consumerism and inequality are rightly rejected, but no yardstick of life needs and capacity realization steers conception instead. To speak of "a fuller, greater, or better kind of development", as Herman Daly, the most grounded of contemporary critical economists does in his Ecological Economics and the Ecology of Economics, is not made criterially clear by defining it as "qualitative improvement in the composition of the physical stocks of wealth that result from greater knowledge of technique and purpose". How does one tell "better" from worse, or "gualitative improvement" from not? The problem here is one of repeating pro-value terms without principled meaning. This is a common problem, as we have seen, even with advanced theorists who know something has gone badly wrong. Life-value analysis meets such problems by its primary axiom and measure, explained in Chapter 6 on and systematically addressed ahead as "the life-coherence principle".

The more prevalent problem is that system irrationality cannot be seen at all by its agents because they presuppose it as necessary and/or good a-priori. Critical philosophers too lack this grounding principle, as 5.15. The Imperative of a Higher Value Standard to Judge Practices and Traditions and 10.11. Justice Theory Without Life-Ground, Life Plans without Life have explained at the most general normative-analysis level.

12.1.1. The Idea of an Invisible Hand Regulating Competition to an Optimal Result

The idea of an 'invisible hand' adjusting supply of private commodities to private money demand by self-maximizing competition among atomic agents is the theodicy of a ruling system which can see nothing else. There has been much said and unsaid about this logic of "the free market", but the concept of "free market" itself has remained confused. The free market of local and independent artisans not affecting supply or demand explained by Adam Smith has almost nothing in common with the transnational-corporate oligopolist system regulating the world today. At the same time, the universal human life needs and the life support systems which lie at the base of the economic enterprise are blinkered out. If the

economics is critical rather than propagandist, the generic life-standard regulators required to govern at the system level are lost in local examples without a principled ground of alternative.

12.1.2. Logical Confusion Reigns

Logically speaking, one cannot deduce from *what many individuals with money want in private markets* the meaning to *what their common organic, social and ecological systems require through generational time to reproduce and flourish.* The meanings of the italicized predicates are not remotely equatable or deducible from the other. Only magic thinking can bridge the yawning logical gap, and only habituated presupposition of it can fail to recognize the absurdity of the equation. This is the logical core of the problem. But it is fortified by other mythic equations. Purchases of commodities are equated to an increase of utility or happiness, although the commodities may cause ill-being. "Consumer choice" by individuals possessing money is thought to be the meaning of "freedom and democracy", although the majority have less. We may see in these and other instances how the reigning thought system has locked into a life-blind circle of conception.

12.1.3. System Idolatry an Old Impasse, Global Life Despoliation a New Problem

As in past orders but more dangerously, system idolatry entails perception of it as inexorably driven by higher laws which mankind cannot modify or interfere without punishment for deviation. Thus it is common to hear "the market punishes hard those who deviate from its laws" and "necessary sacrifices must be made to achieve development" perhaps the lives of millions. This is what we have called "the system God" in 9.7.1. The Abdication of Responsible Government by a Presupposed Rules System. One may observe this phenomenon all over – for example, in the pages of the *Economist* a lead common journal of the world's elites over 150 years. Even if the god-system worshipped is no longer transcendent but immanent within the reigning order itself, faith in the infallible perfection of its design permits no other resolution to its problems than by its mechanism. Thus as system depredations of the conditions of existence become demonstrable, official solutions can be conceived only in the ruling system's terms. Thus "the magic of the market" is called upon to reduce runaway system carbon pollution destabilizing global weather cycles by government rights to pollute rather than trade regulators to stop the polluters. The system's rule is extended to meet its own failures. This is the economic meaning of Einstein's observation, "we cannot solve the problems we face with the thinking which created them".

In place of market magic, *social rations* of fossil-fuel consumption would directly reduce the pollution to towards the minimum of what is needed impartially distributed in accordance to need – as has worked so well in emergency in the past. But such a solution remains unspeakable without a trading scheme for profit to fit the reigning system. The already-proven policy is therefore ruled out before consideration *of* it. In such ways, the ruling paradigm locks out corrections of its failures at all levels – the hallmark sign of its senescence. Yet even interconnected and dramatic collapses of the world's life and life support systems continue to escalate with no connection back to the growth system itself as the causal mechanism."Insanity", observes Albert Einstein again, "is doing the same thing over and over again, and expecting different results".

12.2. Recognizing the Connected Disasters and Their System Causal Mechanism

The phenomena of life and life support system despoliation relate back to a common cause, but system worship does not permit question of what is worshipped. Scientific reason goes deeper. It seek disconfirming instances of depredation of life and life by any *other* causal mechanism, and it finds the profile of confirmation spell out: from the bottom-scraped floors of oceans and phytoplanckton-surfaces on which all life ultimately depends to continent-size rents in the ozone layer filtering deadly solar radiation. Which of the ecocidal destructions has *not* been step-by-step commissioned by self-maximizing money-value inputs seeking to become limitlessly more?

A May 10 2010 Report from the Convention on Biological Diversity (CBD) and the UN Environment Programme UNEP) has concluded that "unless radical and creative action is taken quickly to conserve the variety of life on Earth, natural systems that support lives and livelihoods are at risk of collapsing". It has warned that "business as usual is no longer an option". Yet the unifying causal mechanism is still vague in conception, and the nature of the radical action required is undefined. One may pause here in reflection. What science, philosophy or economics school or discovery has identified the system causal mechanism *or* the logic of its resolution in principle?

The ruling system cause of the global crisis of life and life support systems is taboo to name, as explained in 3.11. What We Don't See: The Common Structure of Moral Blindness, 9.13. Inner Logic of System Blindness Across Domains ,10.8. Contemporary Theories of Justice: Excluding Life Substance and Capitalist Rule, and 11.12. Absolutization of the Ruling Rights System Overrides Life and Life Support Systems. Cause-effect thinking at the system-wide level is suspended. This is why attention is focused on identifying any other threat to common security than the regulating system itself. No structural resetting has been worked out

12.2.1. The Pattern of Planetary Ecocide: What Is Not Caused by What is Unnamed?

The systematic scope and depth of the world crisis of social and ecological life infrastructures need a unified delineation – from destabilized atmosphere, climate and hydrological cycles to uncontrolled carbon emissions by ever-rising commodity production and consumption. Which is not traceable back to the same common cause? What of the air quality people cannot breathe or are made ill by in the exploding business cities of the earth and the regions downwind from them? What of the fresh water left and available in aquifers and rivers across the Americas and Asia which have been exhausted and polluted by agribusiness, industry effluents, and ever larger-dollar schemes? What of the earth mantle and friable soils denatured, contaminated and depleted by factory farming, chemical inputs, exposure and overuse by mono-cropping for profit-rich markets? What of the oceans' larger fish and fish stocks which have been stripped out by factory trawlers in ever wider depleted zones across continents? What of forests clear cut until only one percent of old-growth remains on earth with forest habitats still annually transmuted in country sizes into global market pulp-and-paper sales with tree plantations with no life left in them as the replacement? What of species extinctions and collapses thousands of times greater than the natural background rate featuring crashes of larger mammals and song birds to coral reefs to amphibians by destruction or poisoning of their habitats from high mountains to the world's once richest seas?

The list of collapsing life and life support systems could be extended, from the oceanic feeding base of phytoplankton which is down 40% to the polar fresh-water ice caps melting into salt oceans. One principled generalization, however, captures the logic of the cause-effect mechanism across all these domains of cumulative collapse. No life or life support system is not in decline (*effect*) and every one is degraded or degraded further by the same self-regulating corporate system (*cause*). Two deep-structural questions thus arise. Where in all the sciences, philosophies and economic schools does one find these cause-effect connections explained as a unifying mechanism? Where is a life-coherent system alternative conceived? The concept of "sustainability" is ubiquitous, as we know, but fails to answer either question. Rather, sustainability of corporate profits has been the code meaning under mantra repetition of the public slogan.

12.2.2. The Same Ruling Value Mechanism Is Blind To and Degrades Human Life As Well

If the ruling money-sequence growth system depredates the environmental conditions of human life, natural resources and sinks, it degrades and destroys human life as well by transitivity. This is well known, and the underlying principles are explained in 6.7. Ecology, Economy and the Good: Re-Grounding in Life Value at the Meta Level and 8.7.3.1. Life-Value Ecology.

Prior sections like 11.6. Life-Principled Grounds: Reckoning of Global Rule by Corporate Persons and Rights have spelled out why the system depredates human life and human life standards by the very logic of its growth. While it must be acknowledged that present elites enjoy very high standards in terms of life goods by privileged existences, universal human life goods for the vast majority annually deteriorate the lower and less secure one's position is within the global system whose extremes of wealth and impoverishment escalate at the same time. It is well known now that the two hundred or so richest people in the world have accumulated assets that exceed the combined gross domestic product (GDP) of the 48 least developed nations, and that this same few hundred individuals have a combined wealth equal to the annual income of almost 50% of the world's population. What is bracketed out of the figures is that they are system-caused results

In general, the trends of human quality of life on the planet in terms of the defining life goods identified in 10.12. From Equality to Deep Justice: Re-Grounding in What Is Due to Each as Human are plummeting, and their downward slope is propelled by the same common cause. As a rising half of the world is destitute, public sectors and services are also privatized for profit, ever more of the younger generation have no vocational prospects, general exposure to deadly diseases increases by de-regulated working conditions and commodity toxins, and a global culture of increasing violence entertainment, waste and military spending continues or rises. Yet neither the catastrophic meta pattern nor its causal mechanism are defined by the sciences.

As the explanatory analysis of the previous chapter has shown, international institutions to protect and serve the most vulnerable and least well-off persons and peoples are

simultaneously ignored and unenforced. Again the macro mechanism at work is undeniable. Simply put, the system is structured and state-subsidized to grow corporate moneysequencing rights and demands first, while life-protective-and-enabling standards are simultaneously pre-empted or overridden as "barriers" to this growth. We need not reiterate chapter 11's explanation. Comprehending the system pattern is demanded by scientific rationality, but is blocked against.

12.3. The Ultimate Issue: Society's Rule System Decides Life as Better or Worse

The rules and governing institutions of a social system – ancient, feudal, capitalist, or socialist at the highest level of abstraction – are not given by Nature or God. They are constructed by societies with what they have to work with through generations. Yet what may be traceable in regulatory construction through every step appears to those who inherit the regime as given from without as iron necessity. The rule-system appears to be governed by physical laws, as explained in 1.5. The Unseen Chains of Presupposed Ruling Norms, 3.4. Evaluating Social Value Systems: Off-Limits Even to Marxian Thought and 9.5.2. Clarifying the Lost Human Agency and Measure.

Even revolutionary science presupposes this logic of necessity, not distinguishing between rigidly governing rule systems within material ranges of material possibility and means, on the one hand, and inexorable laws of natural and human history, on the other. Karl Marx himself may have believed in the latter, but he was implicitly refuted by the very movements in his name. They succeeded most in preponderantly peasant societies without a capitalist wage-worker base which Marx assumed necessary to socialist revolution. In effect, these revolutionary societies dropped Marx's theory to act against the ruling order's deprivation of the majority's means of life. Such revolutions have proved that societies can evolve by their own rule systems within their ranges of material possibility, and that they work to the extent that they better provide universal human life goods, as criterially defined in *9.14. Beyond Proxies of Well-Being: The Universal Principle of Life Needs and their Measure.* This is the sound value compass and measure by which stasis, change, reform or revolution can be scientifically and onto-axiologically judged as better or worse through time and in comparison across societies.

12.3.1. The De-Grounding of Economic Science

This is the value constant of judgement in any condition. Whoever is in charge and whoever is scientifically evaluating, the only rules that work in game or reality arewhat better enable people's lives – the social version of the primary axiom of value explained in depth in Chapter 6. The underlying problem has been denial or ignorance of any universal life-value standard as the prior analysis of this study has shown, or attachment to one which is false. Gross Domestic Product (GDP) is the familiar such standard, total money spent on commodity goods and services. It is undergirded by the utility calculus of the ruling economic science. What is not discussed is the complete break of this value calculus with classical political economy itself. What had been *necessary labor hours* at the average of its sector as the measure of the worth of a good – a value calculus evolved through Adam

Smith, David Ricardo, and Karl Marx – was abolished. It was replaced by *money-price paid* as the measure of value. This was much easier than the scientific heavy lifting of establishing the necessary labor hours of society to produce any good to identify its *labor value* – what people actually had to do to produce the goods sold. The new surface money count had another easy advantage. It boxed out all former burning issues around the labor which made the value of goods not profiting from them – a problem not resolved, but eliminated by erasing class divisions and their conflicts of interest from the new economic science.

The value of anything now was the money price it could get on the market, period. All deeper value issues which have been the object of this inquiry and many others were thus erased (e.g., the issues specifically raised in *2.4. Neoclassical Consumer Theory: Man as Pleasure Machine* and *3.6. The Paradox of Market Success: Magnitude of Desires Multiplies Disvalues*). Once yoked to money demand only as the measure of value, "revealed preference" as the new economics called it, anything was possible. The false equations multiplied. The only deciding parameters of value were money-demand accumulated and spent. Each equalled investment and consumer demand respectively, with commodities as the middle term. Their rise equals Growth, and Growth equals Prosperity, which equals Welfare. Freedom is the freedom of accumulated money demand to grow free from state interference, and of consumers with money choosing how to spend it as they please without taxes. The magic thinking metamorphoses of each into all and back into each was the unseen circle of the new de-based science of "neo-classical economics" and "neoliberalism".

12.3.2. The last great and radical permanent change in social rule system was the capitalist revolution itself. Centuries down the road with the new economics in the lead, the system has purefied into the global money-sequence system within whose regulation, as we have seen, almost every life means and support system is at risk with no resource of this science to recognize the problem or resolve it – a paradigm in crisis. As distinguished from the age of plenty once imagined as the future by system ideologues and revolutionaries alike, the life-supports it depletes and wastes are running dry and polluted. Impartial observation today cannot but recognize the organizing disorder. The planetary life host itself is at risk. Yet it is precisely here the deep-structural derangement is avoided by the sciences and systems theory.

12.3.2. Better or Worse Society Understood By Life-Value Measure and Support Systems

The ultimate issue is not whether capitalists are overthrown, or technology produces more than before, or whether markets are free, or whether commodity productivity rises. It does not ultimately matter whether more great technical and artistic feats are left behind in history or astrodust. These dimensions must be taken into account as aspects of human life value, but the issue is understood in life substance and measure by the extent to which universal human life goods – including ultimately life support systems themselves – are better or worse provided through generational time (as explained from 9.14. Beyond Proxies of Well-Being: The Universal Principle of Life Needs and their Measure through 10.12. From Equality to Deep Justice: Re-Grounding in What Is Due to Each as Human to 11.10. What Is the Alternative? Re-Grounding in Universal Life Needs and Civil Commons). As also explained in these and other prior sections, the civil commons is the organization of society so that there is universal access to these essential life goods for leading a human

existence.

As we have seen, this is far from a utopian idea. There has been no functioning society without much of this human life-ground in place with universal life goods of language, water, nutriments, home, care when child, ill or old, art, sciences and culture accessible to most towards all – the universal life goods whose value increases with the depth and comprehension of the life ranges each or all enables (as explained from chapters 5 through 8). The invariant generic criterion and measure of life good advance *or* retardation is the loss of life capacity and range without that life good across domains. Much has been said here to clarify this ultimate meaning, not only in the previous paragraph's subsections, but also in *5.15*. The Imperative of a Higher Value Standard to Judge Practices and Traditions, *6.1.1*. The Unlimited Validity and Applicability of the Primary Axiom, and *8.10*. Understanding the Obscured Logic of Better/Worse Development.

12.3.3. The Many-Levelled Contradictions of the Ruling System

Analysis has spelled out in principle the meta contradiction which world society faces – private corporate money-sequence rights systematically overriding the universal life requirements and bases of human life itself. The paradox to explain and resolve is, however, blinkered out. Decades of scientific reports from many quarters confirm the macro pattern in diverse domains, but few or none join the dots across them.. The injustice of the system's lead agents and beneficiaries being the last persons to suffer the consequences is a further level of the disorder which has been analyzed in *10. Deep Principles of Justice: Grounding in Life-Value Meaning* and *The Unseen Global War Of Rights Systems and its Principles Of Resolution.*

Perhaps the most telling system contradiction here has been with the higher values of capitalism itself – (i) tangible good production at higher levels of competitive performance in place of inherited bloodlines of stagnant reproduction; (ii) the honoring of written contractual agreements among men in place of rule by arbitrary command and brute force; and (iii) the development of science and proof by empirical test in place of theist metaphysics and mass superstitions. These values of of capitalist advance have not fared well. Investment and profit is ever more dominantly by financial stock, currency and derivative trading with no tangible goods produced, while the tangible commodities which are produced are decreasingly needed by human life and are, in fact, frequently disabling to rising tens of millions of people's lives – a system pattern which one will find little or nowhere discussed in scientific journals.

The famed social contract between labor and capital has been simultaneously liquidated by transnational corporate capitalism seeking the lowest money-cost but highest life-cost conditions – a contradiction which cannot enter the dominant paradigm's parameters of comprehension. In regard to the development of human reason, public science, and proof by confirming or disconfirming test and demonstration – the greatest of the advances in the capitalist epoch because the others have largely depended on them – the most momentous system reversal has occurred here. Rational and scientific inquiry have themselves selected for and not against the systematic depredation of organic, civil and ecological life and life support systems with no corrective feedback loop.

12.4. The Driver of the Ruling System: Self-Maximizing Rationality With No Life Base

At the unexamined core of received models of *rational choice* across domains is an axiomatic principle which symbolic notations and jargons conceal and euphemisms mask. The principle is the *equation of rationality to consistently self-maximizing choice for external rather than life-value gains.* Money units are, in fact, the only external good that ultimately counts here, but academics like to substitute other tokens. What this study has thus analyzed as *the money-value sequence* is the dominant governing formula in the real world – to turn money into more money for private money possessors in cumulative reiteration, as explained from 1.14. The Axiological Sequences of Money Capital and Life Capital, 5.13. The Bonding Moral Narrative of the Money Sequence Practice, and 9.3. The Life-Blind Logic of the Ruling Economic Mechanism and its Money-Right Holders.

Self-maximizing rationality in this dominant form so pervasively structures thought and value judgement in this era that it is explained in this study as the regulating syntax of global culture across languages and borders including science itself. The equation of rational choice to self-maximizing possession is prescribed in contemporary economics as "the axiom of rationality". The same generic axiom of self-maximizing choice for external payoffs is followed in decision and game theories in philosophy and social science, as well as formally assumed in models of morality and justice (as explained in 6.16. The Core Disorder of Contemporary Thought: Life-Blind Rationality. In the world of everyday life, corporations and courts of law presuppose this atomic self-maximization as given in its ruling form of money-capital sequencing to more, with formal models of science consistent with this ruling syntax. This is how a ruling value syntax governs across high theory and daily life at once. In the money-sequence value system, its ruling metric of value goes all the way down to the legal equation of a human being's life worth to a money sum payment of expected market income. Workers too are structured in their vocations, unions and struggles by the same principle of money-value gain as paramount (managements rights rule out other issues of value). All games, including war games, assume the self-maximizing strategies of players or teams with the biggest money winners the most respected. No connection to life-enabling values or life-ground enters rational choice in this ruling syntax of meaning across classes and cultures.

12.4.1. Even received revolutionary analysis assumes the self-maximizing principle as the regulating form of class struggle on both sides. The decisive difference is that each capitalist or worker is understood to self-maximize best through the collective interests of its *class* – what Marx argues is achieved through the state mechanism which, he argues, the proletariat must seize from the capitalist class. Both use it as the instrument of their collective interest. This is "collectivist" thinking, however, and it is invalidated in mainstream philosophy and social science where it is singled out for analysis. Thus even a self-described Marxist like Jon Elster deploys only methodological individualist/game-theoretic analysis.

12.4.2. The Separate Individual as Ultimate Onto-Ethical Given

Atomic self-maximization or "methodological individualism", as it euphemized, is the regulating assumption of acceptable understanding. That is (1) the atomic individual is taken for granted as the ultimate ground of human reality and freedom, (2) s/he consistently self-maximizes *qua* rational, and (3) token objects like money sums, not life values or capacities, are the standard object of self maximization. This is the unexamined onto-axiology of the ruling value syntax.

Prior analysis in *5.2.3. Methodological Individualism or Collectivism: A False Dilemma* has explained why the either-or disjunction between individual and collective interest and choice is false; but it is important to recognize that the dichotomy is structured into the underpinning metaphysics of the ruling paradigm *across* opposing viewpoints. For example, when the leading philosopher of law, Ronald Dworkin in his *Taking Rights Seriously* (1978), "places the individual at the center" famously arguing that individual rights *"always trump"* other evaluative considerations within a system of competing individual rights as ultimate, we observe this disjunction as the underlying structure of his thought. Common life-ground and interests disappear. Similarly, when the eminent feminist Aristotelian Martha Nussbaum says in *Sex and Social Justice* (1999) that "separateness of the individual' is "the fundamental fact of ethics" (p. 62), we again see this onto-ethical structure is the basic given. The civil commons as the necessary condition of individual expression – as shown in *9.8.* and *11.7.* – is screened out. These thinkers are at the forefront of progressive thought in this era.

When Jurgen Habermas from yet another school of thought called "Critical Theory" which derives from Marxian thought itself – says in *Between Facts and Norms* (1996) that a right is "an enforceable entitlement to pursue one's interest strategically" (p.32), we find yet again in the midst of contemporary Continental philosophy the individual self at the centre choosing "strategically" as his enforceable right. At the same time, human life needs and ground are explicitly extruded from Habermas's communication theory (as we saw in *3.18.6. Lebenswelt Without Life-Ground* and *8.13. Contemporary Critical Theory: Turning Away from Ontology and Base*). The technical-administrative apparatus of the capitalist market mechanism is left by Habermas to self-regulate "for any modern society which wishes to survive" (as we saw in *8.13.4. Free Communication on the Basis of the Market Mechanism*).

12.4.3. Rationality Across Domains = Self-Maximizing Choice With No Common Life Base

One ultimately regulating onto-ethical goal silently regulates the age – consistently selfmaximizing advantage based on money possession. In economic rationality which sets the ruling program into formal theory, atomic selves seek the most possible money-value in profit and commodities as the syntax of meaning. In practice, corporations are the super selves, while individual selves self-maximize money-value on the micro plane – in work or career plan, tax right and obligation, commodity choice. All proceed in such an automatic way that this inner logic of value gain and loss has become falsely assumed as equivalent to a law of human nature. What is remarkable is that neither the sciences nor philosophy have laid bare this structure of thinking as *ir*rational on the wider plane. On the contrary, the ruling assumption is the *equation* of rational choice to consistent self-maximization (axiomatic) in ratiocinations that are a-priori decoupled from life means and grounds (methodological). This is why John Rawls in his canonical *A Theory of Justice* endorses the self-maximization principle of rationality as "familiar in social science", and explicitly includes "to want a larger share for oneself" with no condition. His "original position" of choosing principles of justice is defined from this ground. No discussed critical commentary challenges this first premise of rationality.

In *Morals By Agreement* (1986), a standard central work in the field of moral philosophy, David Gauthier argues that self-maximizing exchange lies at the heart of *moral* logic as well, and he explicitly defines the ruling objective to have more *with "no upper bound"* (p. 31). As with Rawls, the problem of impartiality is taken care of by assuming that *everyone* reasons in the same way so that a rationalized equilibrium among self-maximizers is achieved by a *contract* among them. Long before Rawls or Gauthier, economic science from Edgeworth to Pareto instituted the self-maximizing principle delinked from any life need or condition as the producer of the best of possible worlds. The famous "Pareto optimal" exchange denotes an abstract "equilibrium" of affairs in which none can be made better off without another being made worse off , as discussed in *10.9. From Pareto to Rawls: The Trickle-Down Doctrine.* None observes that its claimed "optimal" condition is *perfectly compatible with lives and life support systems being despoiled by Pareto-optimal exchanges.* It is important to recognize how locked in this axiom of scientific rationality has been across disciplines as a-priori decoupled from life requirements and conditions.

12.4.4. Medieval and Modern Formalism Alike in Armoring Against the Life World

Economic science leads the way in mathematicizing this self-maximizing logic in aggregated dyadic exchanges with no question of what the method excludes. Formal proofs and graphs multiply in grids of notation all disconnected from any life means or support system. Long dominant movements in philosophy follow suit. Scientific rationality is thereby incarcerated within a meta-program of life-delinked and self-maximizing circuitries represented as paragon of sophisticated science and demonstration.

One might here compare medieval and contemporary scholasticism in their meta logic of understanding. Both are devoid of life-ground, operate from a-priori premises as absolutes, expel or dismiss critics as unfit, and assume a perfect ruling design – with the modern ordering by an "invisible hand" the unseen turn of modern religion into an immanent deism of the ruling system itself.

12.5. The Regulating Sequence of Rationality and Its Alternative Step By Step

With the contemporary dominant model of self-maximizing rationality, deep-structural analysis discloses a set of distinct steps set of controlling assumption at work which are not distinguished nor justified. The axiom of self-maximization is assumed with laws of nature implicit in its mechanical operation. Even emergent critical economics does not engage the model at this ultimate onto-axiological level. The biological struggle for survival, the competitive exclusion principle, the self selfish gene, and the engineering laws of mechanical efficiency fortify the ruling meta program – as *4.2. Fitness to Survive as a General Value Theory* and *7.3. From the Beast Within to the Master Desire Mechanism* explain. All roads converge in one master sequence of ruling assumption constituted by five

unexamined steps in an interlocked set (as already introduced in 16.6.4.):

- (i) self-maximizing strategies in
- (ii) conditions of scarcity or conflict over
- (iii) desired payoffs at
- (iv) minimum costs for the self to
- (v) succeed or win.

These moments of the ruling meta program of rationality assumption are not distinguished or critically examined in any domain. They are assumed as a primitive given by adherents, and grasped only in aspects by critics. Contemporary economics and evolutionary biology are most clearly bound within this framework as a *natural mechanism*, as explained in *4.6.1*. *The Ruling Evolutionary-Economic Axis of Value*. Contractual accounts of justice and morality, the game theory model, positivist social science and historiographical assumption are typically governed by the same value-syntax. Spectacle games of all kinds express it. The (i) to (v) mechanism is, in short, the unseen meta-program of our epoch anchored in assumed natural necessity and represented in scientific guise. This is the nature of the regulating group-mind first analyzed in *1.15.1*. *From Ruling Value Order to Regulating Group-Mind*.

12.5.1. The Alternatives of Life-Coherent Rationality Step By Step

The (i) to (v) program is not in fact natural, nor necessary, nor rational. We can recognize its closure to life reality by opposing each step of (i) to (v) with *opposite* kinds of known possibility – I to V below. The ruling thought mechanism blocks each out a-priori, and so presumes its truth against the evidence falsifying it.

I: To (i) "*self*-maximizing strategies of choice", life-value analysis posits the option of *life*maximizing choices across the lives affected – as has long existed already in the vocations of healing, education and public service. More generally, citizenship which regards the requirements of other people's lives to be as objectively important as one's own is shown by instituted life-protective and equal-right laws across individuals and nations, as explained in *11.7. The Civil Commons: Humanity's Long-Evolved Ground of Society and Civilization* and *11.11 Globalization of What? The Principles of Reversal of the Social State*. Here we may observe how the presupposed meta program of rationality is assumed a-priori against the evidence refuting it without notice of an issue arising – hardly rational or scientific, but in conformity to the ruling meta program.

II. To (ii) "conditions of *scarcity*", life-coherent understanding grounds instead in the historical dynamic of social organization which, in fact, continually transforms towards adequate provision or *non-scarcity* when not blocked against doing so by ruling privilege (as explained in the sections cited in the previous paragraph). That the capitalist market itself must continuously have scarcity to charge profitable prices, on the other hand is neither rational nor natural. Provision of what is otherwise scarce is, in direct contrast, the marker

of scientific rationality which is life-coherent, and it has issued in progressive *non*-scarcity with the most important goods – as with clean water delivery, antiseptic sewage cycles, daily nutrition and hygiene routines, universal health care and antibiotics, and so on. The inert assumption of scarcity as necessitating struggle over what is short screens rules out the basic profile of humanity's *actual* rule-governed evolution (as explained in *9.4.2. Civil Commons versus Predatory Forms of Development*). Here again we may observe a defining premise of the ruling paradigm as patently false.

III. To (iii) competing for *payoffs to self* in a social void (theory) or system casino (practice), life-coherent understanding grounds in life-capacitating vocation as explained in *4.15. The Nature and Ground of Life-Value Duty* and *6.7. Ecology, Economy and the Good: Re-Grounding in Life Value at the Meta Level.* Competitive growth is *not* opposed, but re-sets to a life-coherent form in which the goal to be fought for is to overcome what limits or oppresses life capacities (as explained in *9.4.5. Good and Bad Forms of Competition: The Unexamined Choice Space and Measure*). The ruling value system's presupposition of external gain for self a-priori falsely erases the opposite alternative with no justification thought necessary – again the sign of an invalid a-priorism at the heart at the ruling paradigm.

IV. To (iv) *minimum costs for the self* as regulating priority of the corporate market program of externalizing costs onto others is opposed *life-value efficiency*: which both reduces the ratio of life-value loss towards zero (as explained by *9.12.6.* on the "life-capital efficiency principle"), and eliminates life-value waste as the primary principle of life-coherent economics (*11.15. The Unifying Principle of Economic Efficiency and Life Standards*). Because the distinction between life-value efficiency and money-value efficiency is not recognized in economic and imitative sciences, waste is reduced in private money costs only, while common life and life support systems are turned *into* waste as these money-cost reductions deepen across natural-resource exploitation, labor benefits and public tax revenues. This is not rational nor scientific cost minimization. It is false efficiency in principle assumed as given prior to its evil consequences.

V. To (v) *success or victory over others*, life-coherent objective instead seeks to prevail over limits to human life capacities in which opposing selves are allies in the mutual quest, as explained in *9.4. The Onto-Axiology of Competition: From Predatory to Common Life-Value Gains.* Success or triumph is measured not by how high one's rank or private money returns are, but by the enabling of life ranges beyond previous limits which is achieved, as explained by *6.1.1. The Unlimited Validity and Applicability of the Primary Axiom.* Again apriori exclusion of more life-enabling alternative is irrational, the more so as it is refuted by the most important human achievements of overcoming past limits to benefit all from medical and physics discoveries to feats of social courage against oppression.

12.5.2. Yet the test of the hold of the ruling meta program of (i) to (v) is to try to find any clear *exception* to its dominion in any instituted decision structure of the global system. Both the underlying (i) to (v) premise mechanism and its money-sequence driver have remained inertly in place in the ruling false assumptions. What goes badly wrong in humanity's condition is thus not connected back to this underlying meta program which stays intact, but rather blamed on derivative problems like "greed", "terrorism",

"overpopulation", "hard-line protectionism", "communism" and so on. Displacement of problem is once more the mode of paradigm closure.

12.5.3. The Paradigm Case of Higher Education and Research

Instituted human rationality in the world's leading universities themselves has been increasingly subjugated by this ruling assumption set. Central administrations institute it by a sub-program of (i) multiplying administration positions, perquisites and incomes; (ii) cutting back on faulty and programs not delivering external funds to their control, and (iii) raising fees for students. All this follows from the ruling meta program, but not the conformity of executive academics to it. One ill consequence is that students are forced by higher fees into debt-service to banks to maximize their future incomes in a new scarcity context of fewer vocations and life-secure positions to which to graduate – the private money-sequence in its most poignant circle. In between are faculty progressively reduced to commodity expertises to win the external research funds they must bring in to have jobs, graduate students, labs or assistants. Since these trends occur piecemeal and are not connected into unifying pattern by scientific rationality, they operate beneath integrated recognition or response. Under euphemistic covers of "strategic challenges", "innovation", "entrepreneurship", "serving society" and "competitive excellence", the underlying ruling value mechanism is untracked and unexamined.

At the individual level, careers are institutionally structured to realize steps (i) through (v) of the meta program automatically with no examination of the regulating code: in brief, to seek a self-maximizing career path where many compete for scarce goods to achieve rank and income over others at minimum cost to self so as to win higher place and income – now in the competitive global market which has no regulating value purpose beyond its own growth. The community of researchers seeking knowledge learning and advance as their goal in accord with the higher rationality and science of I to V is thereby abolished career by career. Since the present and future of rationality and science are driven by or through the university's knowledge and research production system, this re-structuring of the academy's mission to compete in serving private corporate money-sequencing and commodity development becomes the causal mechanism of the systematic distortion and erasure of these critical method and knowledge legacies. Critics call the overall process "marketization", "corporatization" and "commodification" of education and research, but the false assumptions of the ruling scientific rationality itself are not penetrated.

12.5.3.1. What Choice Is There?

The question, "What choice is there?" reveals the depth of the disorder. Given that 'the new world' order is structured to private corporate and executive financial gains and increased commodity consumption within and without public and educational sectors – as explained in *11.8. Privatizing the Civil Commons and State to Serve Corporate Commodities and Profit* – principled understanding of the alternative ground of research and action is lost – but all the more required. In historical fact, the alternative is already codified in the university's constitutional objectives, "the advancement of learning and the dissemination of knowledge" and "the betterment of society" (to cite the best known common goals of the university). Once more, we find the ruling system at odds with evolved standards of validity

in the fields it invades. The true academic vocation entails an *opposite* set of regulating principles to the ruling meta program. While it cannot be directly deduced from these constitutional objectives, it can be recognized in counterpoint to the ruling meta program:

(i) to maximize learning advancement and dissemination by

(ii) knowledge sharing without limit for

(iii) understanding as value in itself at

(iv) any cost of difficulty to

(v) develop humanity's more inclusive comprehension of natural and human phenomena.

Observe how each step of (i) to (v) is systematically opposed to (i) to (v) of the meta program and is ruled out by it a-priori. More deeply, observe that *what is ruled out is more educationally enabling in principle at every poins of opposition.* Self-maximization of money possession with no life-enabling use or purpose required is opposed here by maximization of learning advancement and dissemination as an end in self as well as omnibus tool. Conditions of scarce access by private money price are removed by conditions of open knowledge sharing. External payoff as preoccupation is replaced by motivation to understanding as the intrinsic value. Labors are not minimized, but given without stint to achieve the human life good whose margins open deeper and wider with achievement. Winning or advantage over others is superceded by more inclusive comprehension of natural and human phenomena as moving-spring goal (as explained in *5.5. A Grounded Post-Marxian Value Theory: Internal versus External Goods* and *6. The Primary Axiom and the Life-Value Compass*).

Bear in mind that the 'thinking-through' vocation of the academy has already long evolved *against* external interests and distortions to ensure its possibility of development. This is why academic- freedom clauses in university-faculty agreements directly identify this known threat to the university's purpose, and guarantee protection of learned inquiry against it. Precisely this "freedom to inquire without deference to established opinion or doctrine", however, has been overridden by the same global forces that have overridden life-protective law.

12.6. Private Financial Subjugation of Society and the Academy as Ruling Medium

Subjugation of the academy has occurred by the same generic means as the private moneysequencing system controls governments. The ultimate seat of system rule, however, is little recognized by the social sciences. The core of the financial-rule mechanism is that over 95% of money and credit is issued by private financial institutions through individual and public debt contracts which are backed by 0-7% fractional currency reserves whose final guarantor is government and the public purse itself.

We can parse this innermost mechanism of money-sequence rule into eight elementary steps. (1) Private bank debt issues perpetually return compound-interest payments to the banks (2) with little or no bank currency reserves to support them (3) against the constitutional powers of government over money and credit, even as (4) this system perpetually brings governments themselves towards bankruptcy while (5) also being guaranteed by public-debt infusions so that (6) when their 93-100%-leveraged financing system fails, they are (7) bailed out with short public money from tax reductions demanded

by the same parties to produce (8) individuals and governments ever more debt-loaded than before.

Although U.S. heads of state from Thomas Jefferson to Abraham Lincoln have spoken and acted against this system of private-bank rule, their predatory mechanism is the best-kept secret of modern history. Life-serving public sectors are the principal victims along with the indebted majority of individuals. Such is the nature of this system and the scientific rationality that serves it, even as science itself is subjugated by the macro financial mechanism.

12.6.1. The Financialization Fallacy

A fallacious confusion sustains this predatory system. Financial control over what all sectors of the modern economy need to reproduce is confused with corporate bankers' and financier's knowledge of what all subsystems require to continue to do their jobs. This is the sustaining fallacy at the core of private money-sequence rule. It has led to among other disasters the university being required to run itself like a private market operation. What this financialization fallacy absurdly justifies is private money-sequencers deciding what is necessary for governments, public sectors and everyone else, with conversely falsifying results of the "more efficient system" that is claimed.

In the case of universities, this "more efficient and accountable university" run by financial accounting has resulted in radical loss of old and new fields of critical learning, continuously more debt-enslaved students, fewer citizens able to afford university, escalating student-professor classroom ratios, and cheating as a rising epidemic. What has been gained is only what serves the ruling system – multiplying business-oriented courses and programs, commodity logos and franchises pervading the campus, and larger and more expensive central adminstrations. This is, again, neither a rational or scientific ordering.

12.6.2. The Macro Pattern Follows

In sum, an incremental combination of *increased deprivation of money support to independent research and non-business studies* and *new funding only to marketable studies and proprietary research* has emerged as the dominant system pattern of higher learning and research. The consequences are *not* to advance learning and public wellbeing, but to institute the ruling meta program False education flows from false ruling assumptions.

The transformation of university hosts of rational and scientific disciplines, domains and practices into what serves the corporate commodity and money-sequence system allows for few counterexamples of true education standards at work – for example, corporate donors giving to independent or non-commercial research areas for the research value, student fees being reduced or eliminated to enable a more educated public, on-campus franchises required to fulfil life standards such as nutrition for commodities sold, and administrations cutting their own appropriation of academic funds for self salary and position multiplication. In telling set-point of the new order, Canada's university presidents in the 1980's combined 50-50 with corporate executives in what was called the "Corporate Higher Education Forum" to advocate the common policy of responding to government underfunding by serving

corporate industry with proprietary research programs. Thus increasingly privatized and commodified since to serve the corporate market with graduates, research expertise and market sites, the contradiction with the university's own constitutional objectives and the learning vocation exemplifies the ruling meta program coming to rule. More deeply, society's rational and scientific capacities and learning and research advance are cumulatively incapacitated across generational time. The false master assumptions regulating the process continue to govern.

12.7. Prisoner's Dilemma: Paradigm of the Life-Decoupled Scientific Rationality

The single most famous paradox of contemporary rationality and social science is itself generated by the same ruling meta program. Its roots lie in the field of Game Theory primarily driven by post-War U.S. Department of Defence funding. Game theory exemplifies the self-maximizing model of rationality decoupled from life requirements and conditions, and has long reigned at the formalist top ends of economics, philosophy, psychology, and the military and diplomatic sciences. As analysis unpacks the model, we are able to see exactly how it strips out life and life conditions in instantiation of the ruling value syntax. Symbolic and mathematical method denoting options completes formal abstraction from life requirements and bases.

Prisoner's Dilemma paradigmatically represents the de-lifing thought structure at work – a formalized allegory of the exclusion of common life interests which rules as the era's framework of scientific rationality. It begins with pre-set choices boxed into one set for two players whose possibility of communicative cooperation is ruled out. The dilemma which the private choosers confront is, as always, in yes-no binary form – here whether to "defect" (confess) or not. If one confesses and the other remains silent, the one who turns coat goes free, and the one who remains in solidarity gets ten years. If they turn on each other for self benefit, they get five years. If both remain silent, they each get a light sentence of two years or less. What does one rationally do as a self-maximizer? That is the dilemma. No deeper issue is permitted to obtrude.

12.7.1. Once released into academic currency, cascades of disputes have been generated within these stripped option spaces void of life substance and relations. "Reiterated", "n-person" and "free rider" variations have filled journals and books across specialties and disciplines as the world's life supports have silently and cumulatively destabilized beneath. All moves within the game conform to the ruling value syntax. Co-operative unities of persons deciding from common life interests are blanked out as in the global market itself. In poignant but unremarked symbolization of the wider social conditions which the paradigm crystallizes, all other coordinates of the dilemma are erased Kafka-like from the story – what the criminal accusation is, whether either party is guilty or innocent, what their or others' life needs may have been in the situation, the justification of prison-caging people, etc. In short, anything to do with examining the human purposes and life values by which a sane human being or society governs itself are screened out a-priori.

No-one appears to notice that the wider world of billions of people in need of public clean water, an unpolluted environment, and other universal goods of a human life cannot compute within such a life-disconnected framework of rational analysis. Problems of "free riders", "paradoxes of aggregate preference" and other doctrinal blind alleys lock out any mode of collective resolution. Only what can register within the atomically self-maximizing

meta-program can exist. This *cul de sac* is not counted against the ruling paradigm itself, however, but projected onto what it cannot solve, "the problem of collective choice", a surd within this paradigm.

12.7.2. From Model to Reality: The Life-Blind Syntax of Onto-Axiological Mechanism

In this way, the very failure of the dominant model of rationality reinforces the assumption that it alone is rational. Accordingly, it continues assumed that rationality can only be self-maximizing individuals consistently seeking more for themselves. The exemplary David Hume (1711-77) said it early on in his *Treatise on Human Nature:* "this avidity alone of acquiring goods and possessions for ourselves or our nearest friends is insatiable, perpetual and universal". Frances Edgeworth over a century later led the birth of neo-classical economics in his *Mathematical Psychics* (1881), mechanizing the self-maximizing atomic man as "a pleasure machine". Economic science remains riveted to this model, as do its cognate fields in other sciences. The unseen metaphysics of self-maximizing atoms operating as mechanical uniformities in a life void rules concealed in algebraic or other notations.

While we have seen the life-delinked self-maximizer at the core of conceptions of rational choice across divergent canons of scientific understanding, the full mechanism of life-blind assumptions needs spelling out beyond a-priori presupposition. An unexamined deep set of regulating givens organizes as follows, while prediction is made possible so far as people conform to it. In this way, a self-reinforcing circle is established from which deviation is perceived as irrational, and conformity confirms the model. Scientific understanding of humanity and its possibilities in conflict of interest situations is thus imprisoned within a mechanical self-serving model.

12.7.2.1. The Life-Blind Syntax in 10 Underlying Prescriptions of Rule

- (1) All agents seek to maximize their own interests a-priori.
- (2) This a-priori objective remains mechanically consistent as rational.
- (3) No standard of justice or right is permitted but the rules of the game.
- (4) Each player's position is assigned independent of needs and life conditions.
- (5) All choices are in terms of self maximizing choice alone.
- (6) Payoffs and losses are exclusively in terms of more/less for self.
- (7) Choice of direct cooperation with competitors is ruled out.
- (8) No concern for other people's lives can enter calculation.
- (9) No payoff relates to or is affected by life contribution.
- (10) Common life support systems are excluded without remainder.

The self can be an individual, corporate, national, or transient group. The game can be academic or for real, for market strategic planning, or in the theatre of war. Prisoner's dilemma is only one hallmark paradigm of the rationality assumed given across domains. Together the regulating presuppositions define an underlying, lock-stepped onto-axiology which is not examined. None of the leading contemporary challengers of metaphysical dogmas – Donald Davidson, Hilary Putnam, W.O. Quine, or Richard Rorty – opens any of it to question. Rorty challenges the possibility of scientific truth itself, but no element of the ruling value syntax in its generic or money-value forms. The ultimate and underlying master idea is that rationality and scientific method assumes its object of research and conclusion as mechanical in nature, as explained in 7.9. Philosophers Lead the Paradigm Shift to Universal Mechanism and 7.12. Attacking the Field of Felt Being: The Life-Blind Global Mechanism.

In a word, the unifying regulating order of rational-scientific presupposition is that humans are atomic entities whose uniformly propelling mechanism is self-maximization driven to more for self indifferent to life requirements a-priori – with, in real life, private money-value, market exchange and profit the dominant structuring of order backed by armed force. This is the meta program, but is not questioned by scientific rationality at either formal or money-value levels. Alternative to the reigning mechanism is relegated to moral or utopian thought space.

12.7.2.2.. Enacting the Rational-Scientific Model as Global System

The reader may now seek to find a normal choice space within the global system *beyond* this presupposed lock-step frame – in competing for a job, working as a market employee, accepting a raise, shopping for the best price, investing for retirement, paying taxes, and so on.

Or, on a positional level, test how the meta program holds when one puts a proletarian worker, a tenured philosopher, a Wall Street money-sequencer or oneself into the choice space of atomic agent. The regulating syntax is constant across classes and occupations. All are expected to self-maximize; to prefer always more to less money; to compete in the market with whomever desires what one also wants; to know that there is no standard of value that can overrule the rules of the game; to accept that one is born into it and goes where one is assigned with no moral claims beyond its order; to accept the options and outcomes as they are set to maximize one's own position; to hold one's course of choice consistently to succeed; to not worry about others or what is not your assigned job; to stick to one's place within the given order; and to not expect that any who have more have contributed more to life on organic, civil commons or ecological levels which are a-priori irrelevant.

More deep-structurally, the global market and military institutions defending and advancing the system are collectively governed by and prescribe in accordance with this ruling value syntax in more systematic elaboration of the (1) to (10) ordering. It tests out as the regulating framework of official culture across competing selves, corporate persons and most nations in a silent inner logic of the world system *as* rational-scientific in mechanism. Quantitative social science and economics in particular formalize this assumed logic of

atomic choice in linear equations, matrices and graphs. Specialist divisions focus on small interfaces – for example, in analytic epistemology, sense data input and mind processing as mechanisms with competing models. A closed loop thus develops between the system and rational-scientific understanding of it. What is never questioned in the reputable sciences is the system itself or its meta program. This is why when the global system goes very wrong in terms of organic, environmental and social life systems, the problems are not entered nor related back to it as causal mechanism.

12.7.3. The Ultimate Missing Link of Reason and Validity

What is missing is the critical second-order plane to consider what this inner meta program is blind to, and what it consequently despoils by the nature of its drivers. This is the old taboo zone of opening reigning assumptions of how we live and think to critical question. Such questioning may be philosophy's and critical science's vocation, but not yet built into their methods so as to be able to distinguish between what enables and what disables life organization itself – truth and falsehood at the ultimate level (as explained in principle in *6. The Primary Axiom and the Life-Value Compass*). At the organizing core of the life-blind meta program lies scientific method itself in which consistency with universal life requirements – the ultimate principle of life coherence – does not yet exist as a methodological requirement. Herein lies the unspoken tragic flaw of modern rationality and the contemporary world.

12.8. The Underlying Incapacity of the Major Critical Reactions

A "postmodern" reaction has occurred over 40 years against the dominant paradigms of rationality and social science. Analysis has explained this reaction in *1.9. Philosophy's Turn Against Universal Values: Rejection Across Schools, 5.6. The Rise of the Story and the Fall of Truth*, and the annotated bibiliography. What is of particular interest is that elaborate critiques by such leading postmodernists as Derrida, Foucault, Baudrillard and Lyotard do not find any problem with the life-decoupled logic of self-maximizing atomic individuals, but rather implicitly reiterate it in idiocyncratic forms. What they repudiate is *universal* principles of meaning. Only "differences" remain.

12.8.1. Postmodernism and Positivism: The Onto-Axiological Common Ground

Ironically, the anti-system comportment of postmodern thought produces an analogue to the universal consumer market. A pervasive rhetoric of individual difference and liberation is asserted while the homogenizing global capitalist order itself is not called into question. Postmodernism too adopts a form of self-maximizing atomism which is just as decoupled from life needs and antagonistic to external regulators as the global corporate system itself (as explained in *1.10. The Unseen Contradiction: Pluralism in Theory Not Practice*). At the same time, postmodernism is militantly opposed to capitalism's historical enemy, Marxism. It is for this reason that learned critics like Frederic Jameson explain it as an "ideology of late capitalism". Postmodernists like Gilles Deleuze seem to abhor the system, but for him the way out is by "schizoid deterritorializations" of ubiquitous capitalist flows in "madness escaping control on all sides, and carrying us along" – a voluptuary protest in surrender.

In all, a strange underlying agreement holds on the onto-axiological plane between postmodernist theories, on the one hand, and positivist-mathematical rationality, on the other. For both, reality and value are based on disconnected atomic spaces seeking more for private selves with no criterion or limit – at one pole, formal, logical and atomic, and at the other pole literary, polyvocal and euphoric. What unites them at the meta level is pursuit of maximizing sequences decoupled from universal life means and conditions in accordance with a meta-program none exposes or challenges as rational.

12.8.2. Individual Rights: Again Atomic Structure and Life-Ground Disconnection

Individual rights are much affirmed in the face of the ruling world system, but again express the meta program's atomic parameters and disconnection from life means and supports. Individual rights are thus claimed to exist with no means for people to exercise them. The individual's rights to "life, liberty and happiness" are assumed as the meaning of "the free world", but within the society of "the leader of the free world" increasing tens of millions lack sufficient food to eat, homes to live, basic health care and jobs, while far poorer societies which have them are denounced for "communism".

The concept of people's rights to life and liberty have not always been so life incoherent. The Magna Carta itself was accompanied by a Charter of the Forest which guaranteed the rights to free access to means of life from the village commons including wood, fuel, cooking herbs and delicacies, tools and building materials, fenceposts, livestock feed and grazing room, transportation passage, and prohibition of private enclosures – all to be later expropriated by agri-capitalist rights. This expropriating process was what John Locke celebrated as the "natural right" of private property, and Karl Marx oppositely described as "written in letters of blood and fire". At this great turn of economic-moral ordering, private-property rights in land, goods and money exchange were imposed across the world while life-means reference in rights was simultaneously elided in the new system's property and exchange laws.

12.8.2.1. The Undeclared War: Rights of Private Property Against Rights to Life Means

Once individual rights are reduced to rights only of private possessors, those without property who had formerly lived from self-employment and the natural goods of the commons are left with no rights but to sell their labor- a process that continues today in the "developing" world. As we have seen, Locke's *Second Treatise of Government* (1689) argues that those who transgress private property – such as dispossessed land workers – have "put themselves into in state of war" with its possessor and are punishable by death, as in fact occurred in countless thousands before and afterwards. Not only individual rights, but ethics thenceforth follows private property lines which may expand with no limit to other's impoverishment as economic science affirms the necessity and optimality of the free market. Contemporary presupposition of self-maximizing rationality a-priori delinked from universal human life means and common ground has, in short, a long history of sedimentation into axiomatic assumption (as explained in *10.7. Understanding the False Justifications of Money-Capital Right* and *11.1. Blocking Out the World: The Dominant Understanding of Rights*)..

12.8.3. The canonical Declarations of Rights in France and America, both influenced by Locke's conceptions, reflected this re-grounding of rationality. Revealingly, however, the 1793 Declaration of Rights in France, *Declaration Des Droits de l'Homme et du Citizen*, included an Article 21 saying (translated) "public assistance [to individuals in need] is a sacred debt" – that is, before the White Terror ended it, as discussed by Jeff Noonan in his *Democratic Society and Human Needs* (2006). The American Declaration of Rights has no such article in its development (with legal science only entrenching corporate rights since), but U.S. President Roosevelt's declaration of a 'New Bill of Rights' in 1944 attempted a regrounding of individual rights in the universal life goods they require to live as human – the implicit core meaning of the 'human rights' project explained in the previous chapter.

The disconnection between asserted individual rights and the means of life for individuals to exercise them in fact marks the onto-axiological rupture of science's *homo economicus* from any life base, community or universal needs. The individual of the ruling meta program is thus constructed as decoupled from any life-ground, exercising rights only with private money demand, and regulated across differences by the self-maximizing money-sequence order. As in magic thinking, a contradiction between the claim of individual life rights and liberty and the reality is repressed by screening out cases which pose the contradiction. Science is no exception, as explained in *1.15.3. Modern Science Too Subjugated by Ruling Value Program.*

Advance beyond the fatuity of claimed rights with no means to exercise them occurs when, like Alan Gewirth, rational analysis recognizes that any right requires the necessary conditions of its fulfilment. Yet even Gewirth recognizes only "the generic logical entailment" of individual rights to "the necessary conditions to the action" they entitle. He too leaves rights atomically conceived, empty of life contents, and decoupled from the common life support systems necessary for their realization – all in silent accord with the ruling meta program.

12.8.4. The Limits to Growth and Population

As common human and natural life and life support systems have been drawn down by what is declared more efficient as it produces more wastes, concerns have mounted from more alert scientific quarters about overstepping natural bounds. Yet still there is no connection back to the regulating system selecting for the problem. Rather the meta program continues to govern at another level. Thus analyses such as *The Limits to Growth* (Club of Rome, 1972), and *Our Common Future* (World Commission of the Environment and Development, 1986) recognize a general problem of system overreach, but do not link analysis back to the money-capital selectors at work which override the limits of common life support requirements and continue to produce the collapse warned against. For example, the Brundtland Report allows for a "five to ten times *more* growth", while vaguely defining sustainability as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". No criterion of "needs" is provided to rule anything in or out. Multiplying commodity growth with no life standard to steer it is not a life-coherent solution,

Most strikingly perhaps, the hallmark U.N. Report fails to define the ruling value-system's ultimate contradiction – the conflict between a paradigm which entails maximization of commodity production and profitable sales without clear limit as "market freedom" **and** the

biophysical limits of its life-support systems to continue to carry this unsustainable load. One might be forgiven for concluding that this scientific report so obscures the problem in sectoral data that there is no more principled steering of the global mechanism than before. The concept of "sustainability" has thus easily come to mean sustaining the system selecting for the problem.

12.8.5.1. The Science of Overpopulation

A much-favored alternative solution is to stop world population increase. Yet here again the science is focused on atomic aggregates without structural determination. What is missed is the underlying system of life means exploitation and appropriation that selects both *for* over-population among the deprived in newly industrializing societies and *against* population growth in societies with high-level female literacy and social programs. The aggregate gross figures blinker this deciding distinction out. What is most screened out by the overpopulation hypothesis is the increasingly stark fact which makes population demands on means of life an extreme problem – the thirty-times more or greater market demand by richer populations and classes which simultaneously deprive the poor of what resources they have to develop a common welfare economy in which no endogenous overpopulation occurs. The civil commons solution is as usual invisible through the mind-set.

Here as well the deeper cause-effect relationships of problem and resolution are locked out by the regulating method of comprehension. *Only atomic-aggregate phenomena can be seen; actual life requirements and common life support systems are blinkered out; extension of the system is repetitively re-enacted as the solution to its failures.* Thus the exponential growth of private money-capital increasingly appropriating all resources for private money-sequence growth is not related to the exponential growth of impoverished populations. The most comprehensive macro correlations cannot be seen.

12.9. Failure of Rational and Scientific Method to Penetrate the Central World Problem

Rationality of any kind must be consistent with its objective to be rational. This is well known. The unseen problem is that *life-enabling* and *life-disabling* forms of consistency are not logically or scientifically distinguished at all. Consequently the foundational onto-axiological distinction between knowledge and science to solve problems for the common life good (yielding all great knowledge contributions) and proprietary knowledge and science for private money gains and profit whatever the externalities (contemporary pharmaceutical, agribusiness and weapons sciences) is expunged beneath recognition.

In the permission of this repressed distinction, modern scientific rationality has come to be funded to meet the market objective of private money-value gain whatever the costs to everything else. The common life good does not compute, although universal value is invariably asserted. This is where the ruling system religion manifests as fanatic. Understanding which does not serve the ruling doctrine is ignored or dismissed. Science follows suit. In consequence, life-ground, coordinates and standards are erased rather than anchored in.

12.9.1. The Money-Value Calculus and Mathematical Language

The metric of money units – homogeneously additive and life blind – is the universal language. Its artificial unit uniquely enables *commensurability* by money-count quantification across all domains. This is the reduction to one ruling unit of measure that a total system requires to invest ultimate meaning in an elaborated exactitude of system value across cultures, differences and kinds. No "difference principle" or "radical indeterminacy of translation" – continental and analytic holding-points against universal meaning – protests here. Again, all sides avoid question of the reigning order. A far-reaching hypothesis assists understanding of the predicament. *Life value is always annihilated by ruling value so far as the latter is not yoked to produce life value.*

Such comprehension is screened out a-priori. Thus in this era, every life system and practice is *"rationalized"* to fit the one true measure of money-value and its sequencing to more. For this ruling logic, mathematics alone is suitable as the mediating science of commensurate measure. With its inherently formal language of uniform and fungible units of calculation differentiating to infinitesimal margins, algebraic mathematics is perfect for the ruling money-value calculus. Its logic is a-priori indifferent to life content and implications – although it *can* register both if so calibrated, as in the *dose-response curves of adverse health effects by noise or other pollutants.* Such dose-response calculations are profoundly needed across the commodity system, but mathematics too has been subjugated to the lifeblind meta-program. Thus it is not used to plot life-value/disvalue coordinates, but to plot money-value sequences that hollow out life-serving revenues as an autonomous necessity of the system. In this way the system's rule comes to present a formal appearance of number holding sway over the flux as it depredates planetary existence at all levels.

12.9.3. Self-maximizing exchanges of money-values have thus become the ruling logic of the global conditions of human life, seemingly propelled by an *autonomous necessity beyond control* or alternative. The deep-structural hold of this ultimate world problem beneath mathematical method is explained in *1.15. The Fatal Confusion of Ruling Norms and Physical Laws*, 3.4. *Evaluating Social Value Systems: Off-Limits Even to Marxian Thought, 4.4. The Alibi of Necessity Across Doctrines,* and *5.12. The Problem: Lack of Life-Value Ground to Evaluate Humanity's Ruling Practice.* The momentous consequence is that the world system is not seen as rationally alterable.

12.9.3. False Equations of Ruling Scientific Rationality Block System Decoding

Money-count rationality rules the everyday life of the street as well as economic, business and policy sciences – it is convenience, reality and the system. But it invisibly generates irrational results at the wider level of life support systems. *Scientific reports of well-being gain for society are daily given at the same time as planetary life support systems are in fact collapsing.* Per capita average income is the only universal indicator deployed across governments. It is measured by dividing citizen population into gross national sales or GDP, and is equated to citizen well-being. Rises in market sales are made to equal citizen wellbeing gains. Consumers are/are not spending is the good/bad news announced on the media daily. Government and policy scientists assume the equation too and seek higher average incomes as system success.

Yet another paradox arises. The average income may rise *within* the human system, but the poor or the majority be made worse off when most of the new wealth goes to the top few percent – what has happened in recent years across the world. This is called the "inequality

problem", but does not compute to the formal models of economic science as a problem. Not even what is bought and consumed in greater quantities is considered in economic science's identification of "enhanced welfare". For example, more junkfood and fossil-fuel leisure machines bought may raise GDP and average income, but produce epidemic obesity and other diseases as well as environmental degradation over time. Thus the system paradox deepens further. What is in fact bad for human well-being is counted as good for it, and the economy and social policy continue to be steered on this false basis (e.g., by continuous social-sector and tax reductions to increase average private incomes as good for all). Contradictions with life reality multiply, but stimulate no change in the reigning science or its paradigm. The reason for these multiplying contradictions without paradigm revision is that the science is a-priori life-blind.

There are many such examples tracked across this study, and most begin with the false generic first premise that private priced goods for a profit are *goods*, the more the better (as explained in *11.5*. *The Unseen War: Goods for Corporate Persons Are Bads For Human Persons*). This is a regulating order of value gain that is not identified as absurd, nor corrected in the relevant sciences. While life forms and common life support systems are cumulatively despoiled, the poor get poorer, and the goods sold are increasingly bads for human and ecological life systems, still the system's growth is assumed and declared as necessary and good, with economic science leading the way. Readers might ask, what greater paradigm falsehood could there be? The most widely sustaining idea of its truth is that all is chosen by individuals in aggregate who each pay a price for what they desire at the lowest cost: and thus, it seems to follow, it is a system of efficiency, freedom, democracy and the good at once. The core of ruling this onto-axiological confusion is critically diagnosed in *3.6. The Paradox of Market Success: Magnitude of Desires Multiplies Disvalues.* Here analysis targets the false assumption that equates social choice to the aggregate of such individual preferences.

12.9.3.1. Individual Choices Decide the System: Deconstruction of the False Logic

Amartya Sen's monumental bibliography of his Nobel Prize Lecture, "The Possibility of Social Choice" (1998) demonstrates that the received scientific view at the highest level is that social choice equals aggregates of individual preferences. This metaphysic of atomic selves and their preferences as together the nature of "social choice" is taken for granted across domains of science, theory and public polls. Predictably, its atomic-choice framework continuously generates what is called *"the problem of collective choice"*. Once "Arrow's paradox" demonstrated that no rationally consistent social choices can be derived from the aggregated ranked preferences of individuals in *Social Choice and Values* (1963), his demonstration became the set-point of subsequent understanding. "Social" or "collective choice" was henceforth confronted in the scientific literatures with the impasse of irreducible paradox.

This now regulating assumption of received scientific rationality and policy decisions is, however, also false. Consider an example. Binding life-protective standards built into the market's exchange system by elected constitutional authority is a major social choice, but is ruled out by the atomic-aggregate metaphysic which *equates* atom-counts of private preferences to "social choice". Thus the abolition of slavery in global free trade cannot be understood as a social choice within this ruling metaphysic. No atomic count was taken. Yet such social choices for life-protective standards measure social advance and human

civilization itself, as explained in 8.10. Understanding the Obscured Logic of Better/Worse Development and 8.16. The Common Life Interest as Universal: The Ultimate Choice Space of Action. Assuming social choice to mean only atomic-aggregate counts is thus not only fallacious, but militates against real social development a-priori.

Unintentionally, two errors have been locked into this assumed metaphysic of received scientific rationality: (1) a fallacy of division is built in by the reduction of social choice to the sum of the private choices of the separate individuals constituting the social organization; while (2) social life standards to rationally regulate choices to cohere with rather than disable life systems are blinkered out. Both errors are corrected by the missing principle of life coherence.

12.9.4. Formalizing the Ruling Value-Sequence Contradiction with Life Reality

The generating core contradiction of the ruling system is laid bare by identifying the opposition of two internally consistent sequences of choice which are not distinguished. Both sequences of value are rational under the now ruling conception. But the ultimate principle of distinction which is not recognized is that one is *indifferent to the loss of life value* and the other is *structured to gain life value* – both in rigorous consistency requiring no false deductions to be sustained and grow. The *life sequence of value* (Life à Means of Life à More Life, or Là *M-of-L*à L1) deploys means of life to yield better life. It expresses at the highest level of abstraction the life-value principle underlying all possible expressions and variations of the life process, as explained in *6.1.1. The Unlimited Validity and Applicability of the Primary Axiom* and *8.15. Life Coherence: The Lost Baseline of Human Reason.*

On the other hand, the opposing value syntax is *the money sequence of value*, or in formal notation, a L as M a 1. It deploys life and lives at all levels as *its means* and seeks solely to maximize money possession by the sequence. In plain language which is often expressed in various forms, but not recognized by even scientific method, *profit value displaces life value*. More systematically, this is the self-maximizing meta program decoupled from life requirements in money-bound form as first explained in *1.14. The Axiological Sequences of Money Capital and Life Capital*. It is not decoded as the value syntax of the ruling social system, however, even by Marx (as shown in *1.14*).

In received economic science and policy that follows it, the money-value sequence is sweepingly described as "value adding" *simpliciter*. A-priori approbation of the system is built into the very concept of its process, just as it is with "goods" to stand for any and all priced commodities for profit. Pro-system bias is always a problem, as we have seen from *1.5. The Unseen Chains of Presupposed Ruling Norms*. Here it deepens so far as it is structured into the language of modern science itself. An omnibus false assumption is built that the economic system produces only goods, adds value with every sale, allows all free choice, and does so more efficiently than any possible alternative. This is the god-system, but even its renowned 'efficiency' regulator is illusory. It consists only in reducing private money costs – specifically, the costs of private money possessors' sequencing to more

money than they put in, and consumers who may get cheaper commodities. This is in principle an inefficient system, however, because it leaves all *other* costs and wastes out of account – thus allowing for the greatest possible inefficiencies to count as efficient, even destruction of the economy's very life support systems themselves.

12.9.4.1. The Life-Blind Rule that Science and Rationality Blocks Out

It is true that money-sequence capitalism may be externally regulated by public authority to meet the life requirements it ignores and overrides, but such regulation is repudiated (as explained in such previous sections as 9.3. The Life-Blind Logic of the Ruling Economic Mechanism and its Money-Right Holders and 12.4. The Silent Driver of the System: Self-Maximizing Rationality With No Life Values). When the private money-and commodity sequence is the regulating logic of the social system, accordingly, neither its logic nor effects are examined or connected by the relevant sciences. Such a system cannot be chosen by individuals if it is not seen. Beneath the individual preferences within the system is the social construction of rules by which the society lives (as shown in Chapter 9). This is social choice at the value system level not penetrated by scientific rationality. It is preempted as if it did not exist. Thus the ruling system leads towards the collapse of humanity's life support systems without identification of the cause. At the same time, alternative direction by the social choice of rule-system change to prevent economic collapse is screened out by the atomic-aggregate metaphysic of social choice. This is the many-tiered disorder explained in 9.10. Above Public and Market Rules: The Money-Sequence System Disorder, and 11.8. Privatizing the Civil Commons and State to Serve Corporate Commodities and Profit.

The money-sequence system therefore leads to more of what individual human beings are most of all concerned to avoid, but have no evident way to be secured against – rising income insecurity and disemployment, immizeration by degrading conditions of life of fouled air, waters, and earth spaces, insufficient money for healthcare or continued education, worries about old age, and non-stop pressures of the system on the social infrastructures which are alone capable of providing for these common life means through generational time (as explained in *11.9. The Hidden War: From Ecogenocidal Rule to the Rise and Fall of the Welfare State* and *12.2.3. Not Even Life-Protective Institutions and Laws in Place Are Enforced*).

Want-counts by market or system election cannot in principle meet the problems, as explained in *3.9.3.1. The Life-Blind Value Calculus: Reconciling Values by Counting Wants.* Received scientific method lacks the resources to either recognize the imprisoning collective life insecurity or its only mode of social resolution.

12.9.5. Scientific and Epistemic Methods Continue Assumed As They Fail to Explain

The life-destructive impacts may grow, but the structural cause at both system and science levels remains boxed out. Professor Jared Diamond's 2005 study, *Collapse*, for example, names the prospective catastrophe, but blinkers out the system causing it, as we have seen in 7.17.1. Jared Diamond's Collapse and the Gaia Hypothesis. Diamond provides an

impressive global documentation of ecosystem collapse under the pressure of alien socieoeconomic systems, but he paradigmatically evades connecting structural cause and effects with the surrounding order – with entries under the index category of "globalization and environmental problems" referring only to China (led by the Communist Party). His overview standpoint that "globalization means nothing more than improved worldwide communications"(p. 517) indicates the failure of even an encompassing empirical study to think critically at a system level. The terms "money", "profit" and "corporate" do not appear as categories of critical analysis.

While the wider and deeper pattern of system globalization becomes increasingly evident in fact, in what domain of scientific expertise does the *deciding value mechanism itself* arise to research or question? Scientific method as it stands seems incapable of recognizing, explaining or resolving the system disorder. It is not as if there is shortage of evidence for system-led collapse and incapacity to stop it across life-support domains – aquifer reserves, ocean fishstocks, coral reefs, forest habitat, primary arable land, nutritional contents of processed foods, tolerably quiet zones, songbird numbers, where does the bio-ecocide stop? All declines proceed together, but no unifying structure or common cause is disinterred and no life-coherent re-set is defined. While science and philosophy are concerned above all to ensure self-corrective and revisable understandings of knowledge and truth – the principle of fallibilism being a near-universally agreed-upon conception – no failing of the ruling system itself or scientific method is laid bare. They remain assumed in effect as infallible.

As the deepening and widening profile of degradation of life bases becomes undeniable in biophysical reality, the presupposed meta program continues to regulate however catastrophically. Deep-structural analysis of the globally connected phenomena discloses one underlying connected pattern at work: (1) every moment of the overall process is led by a unifying value mechanism applied across sectors and cultures which is (2) assumed a-priori as necessary and optimal and (3) is followed by further cumulative life and life-support degradation at more levels (4) disclosing the failure of system and science, but (5)the pathogenic cause-effect ordering is not identified within the system nor (6) are the scientific method and rationality at work in every step conceived as requiring any corrective principle of method.

12.10. The Unexamined Problem of System-Cooked Science

While losses of specific types of natural resources, animal species, freshwater sources, atmospheric balances and so on have been studied, with silos of specialist information progressively connected in scientific reports led by United Nations bodies and government reports, the ruling program itself is screened out. Economic science leads methodological occlusion by blocking out all ill effects which do not cost business money. State policies structured by economists, financial experts and public relations consultants follow suit – repressing recognition of the structural biases and led by dominant market forces driven by the ruling money-value program and calculus.

System critics are at the same time ignored or dismissed as uniformed. When major public demonstrations still arise to draw attention to unresolved deprivations and crises, the relevant sciences of surveillance and infiltration, anti-personnel weapons, strategic response planning, and public relations management are set into motion to invalidate and eradicate resistance. News media focus on the threats or spectacles of violence and avoid the deep-

structural issues at stake. This is how the system is sustained by its expert and scientific resources. As for the natural and social sciences proper, nothing is institutionally funded in which the ecological and civil catastrophes and their common cause is investigated at a system-wide level. Solutions multiply, but not to the money-sequence driver itself. Prior to censorship, *the issues exceed the resources of the methods of the sciences to pose*. No methodological principle exists across the sciences to recognize what has gone wrong or to correct it. Rather the opposite, as explained in *12.2.1*. Where Do Any of the Sciences or Philosophy Schools Penetrate the Global Causal Mechanism, or the Principled Grounds of the Radical Turn Required?

Even evolutionary biologists and ecologists who study long-term changes lack the capacity for axiological system analysis, as explained in *4.2. Fitness to Survive as a General Value Theory* and *7.17. Ecology without Axiology*. For example, extinction spasms, climate crises, multiplying income inequalities, and so on are all known trends and best understood as factual hypotheses continuously confirmed by ongoing evidence, all well and good: but they are not explained as system-caused disorders and, least of all as driven by a life-blind value system. Value issues are "for moralists or ethicists, not science", and that is where they are consigned – to be lost once again within the atomic metaphysic at further levels, agent-relative ethics and moral philosophy. What is not observed is that the generic assumption of the "value neutrality" of the sciences is fallacious, as explained in *1.2. Scientific Method as a Value System*, while the conception of the ruling value mechanism as driven by physics-type laws of supply and demand is itself a naturalistic fallacy at the system level (as explained in *4.4.3. The Alibi Equation: Existing Order = Natural Order = Good Order*). In these ways the methodological conditions are set for system-cooked science to rule.

12.10.1. Normalizing Cooked Science for Corporate Profit

If on the social level, informed witness or whistle-blowers call an effect of the disorder to critical attention - for example, government allowance of commodity hazards in pharmaceutical and everyday products – the alleged ill effects are dismissed, professional critics denounced for bad science, and scientists who know better obliged by private contract to keep silent. Peer-reviewed science becomes a cudgel to silence criticism by there being no peer-reviewed science to support the criticism which has been kept out. The circle is Kafkaesque, but the suppression of science is real. Renowned research scientists have been stripped of their research positions and laboratories for warning of morbidity outcomes of a commodity's consumption (e.g., cigarettes for half a century, and pharmaceutical products today). There is in fact no existing standard of scientific method to ensure or protect life coherent science in these conditions. Even the venerable Hippocratic oath of medical science to "do no harm" is overridden by what might be called 'the bad science method' - to contract science to private funders with a commercial interest in the results, to direct ever less public funding to science without private corporate sponsors, and to charge any scientist who publishes any hint of contra-indicative evidence from scientific tests with violation of private contract. This is system-cooked science structured into the enterprise of science itself. Consequently, research for mass consumables which depredate human or ecological health, polluting and carcinogenic commodities with no life function, and so on can be technically planned and executed by scientific expertise through each moment with no life-system inconsistency conceived and no deeper scientific accountability to results in reality. There is no requirement for consonance with life support systems themselves.

With "scientific innovation" increasingly reduced to private commodity development, state and corporate "risk-benefit" formulae in place of precautionary standards, and the sciences in universities tailored to fit this regime, it is remarkable that the term "science" is any longer accepted. Since commodity science is a-priori indifferent to its external effects, the reality of life-system interconnections and destructive consequences beyond it are blocked out. Untested results can accumulate in the real world to nightmare proportions with merely denial of what has occurred beyond the blinkers. If truth is what is in accord with reality, how can this structured ignorance be scientific? The question is not posed. The mantra of "the necessity to compete in the global market" instead pervades, as invocations of God's omnipotent rule once did in the feudal past.

12.10.2. Exemplars of the System Disorder

Consider the directive of a major national research council in Canada (with the squared brackets for value-type clarification: "Increasing competition for research funding demands that research capabilities focus on those areas with highest [money] value and return on [private-profit] investment. Prorities are set by the [corporate-commodity] marketplace so that scientists access appropriate market signals, are aware of the technology requirements of [private-profit] industry, and focus their [university] research appropriately". It is important here to observe the operational validation of the regime by deployment of generic pro-value terms which mask the private-profit nature of the enterprise as highest value research for the public interest. (a standard propaganda operation as defined in *4.7.2. The Syntax of Propaganda*).

Subsequent to this directive, the federal Medical Research Council introduced a "research integrity" condition to prevent such subjugation of higher research to private commercial interests by requiring that research money be "added to the general pool of grant funds and [italics added] *not be adjudicated by industry representatives with a commercial interest in the results*". This expert national medical-council directive was reversed by the ruling centre of the federal government without explanation. Public funding of higher research has in such ways been rigged to for-profit commercial research and against independent research at the same time. Thus higher research into life-and-death matters for the world has been preempted – for example, commodity causation of cancer and other fatal diseases, cooperative international water desalinization and purification, unpatented low-cost cures and independent nutrition ratings of foods, public ration systems for life goods in short supply, dose-response monitoring of adverse health effects of commodity noise, mandatory recycling systems for all priced products and wastes, and – last but not least – sound public-bank issue of credit allocation to life need provision by government and families.

What is selected out by this regime of rigged science may be more than significant what is selected for.

12.10.3. From Systematic Bias of Research to Comprehension of Correction

There have been growing debates *around* the issues of higher education and higher research corruption at a system-wide level – whether pharmaceutical and medical corporations bribing researchers and doctors have hijacked the sciences as a servant

function to their own profit agenda, whether students conceive their education as merely a middle term for selling themselves at a higher price, whether higher research itself has become a mere private-patent function within corporate money sequencing, and so on. The critical literature here has grown, but lacks conception of methodological advance to resolve the problem.

As explanation moves to resolution at the level of methodological principle, reminders of the system problem are called for. Prior to distortions of science and understanding by ruling external interests, system-deciding rules determine these ruling interests themselves, as explained in 9.11. System Regulators Determine What the Interests Are, Not the Other Way Round. Thus prior to the subjugation of the sciences to private corporate interests today, a more basic question arises. How can scientific method be scientific unless it is independent of merely positional functions within the surrounding system of private power?

12.11. The Life Coherence Principle: The Missing Consistency of Scientific Rationality

So long as no life-coherence principle exists to regulate method, the sciences become techniques to serve external interests which are life-blind in principle. In such situations, they are neither rational nor scientific. Partial comprehension is confused with truth – as once Ptolemaic science and philosophy were under the external control of the Church. The most elementary criterion of scientific truth – positions that accord with reality – is compromised or overridden. Just as the astrophysical rotations described by Ptolemaic science did not cohere with the wider reality, so today the common life support systems of the earth itself are not taken into account – with much more severe effects.

So-called science and rationality may continue slanted in accordance with a ruling partial interest and may disconnect from the consequences that disconfirm the ruling myopia at ever more levels. Fixation of science within an invalid paradigm is a long familiar problem, as the scientific pioneer of this deep-structural insight, Ludwig Fleck, first spelled out in his 1929 classic, *Genesis and Development of a Scientific Fact*, and as has been further explained in *1.15.3. Modern Science Subjugated by Ruling Value Program*. The problem has been that scientific paralysis within a socially dominant paradigm has remained uncomprehended at the system level. Thus today economic and related sciences simply bracket out effects on life supports systems as "externalities" – much as church scholastics once bracketed out Galileo's telescopic evidence.

Subsection 12.5.3.2. The Financial Subjugation of the Academy in Its Unseen Regulating Principles explains how science is thus system-cooked across domains. Global biophysical laws themselves are ignored. The structure of false assumptions built into private commodity science blinkers out reality beyond sales, but the depletion, degradation and collapse of life support systems in consequence do not disappear. They deepen. It is true that enjoyment of the aggregated commodity, prestige and money gains lull elites and the sciences to sleep within the life-blind paradigm, but the regime disorder still grows. This is why life and life support system destruction has become ever larger scaled with the sciences enabling every step blind to the results they do not take into account. This is also why research for arms sales, genetic piracy and patent impoverishment of originators, chemically adulterated food chains, assembly-line mass mutilation of animals for cosmetics, increasingly ecocidal energy extraction systems, and so forth go on with no rational or scientific correction. With progressively catastrophic costs and losses to human and ecological life excluded as externalities, commodity science proves false at a level that is

not comprehended.

12.11.1. Restoring the Known Rule of Scientific Integrity and Impartiality

An elementary standard to ensure against system-rigged science is already well known, but is silently suspended in the global market era. It is the rule for scientific impartiality which prohibits funding or control in which the funder has a private financial stake in the research outcome. Such science is ruled out because it may be managed to suit the external interest funding or directing it, a service that is expected in all privately paid employment. When the payer is, moreover, bound by its own private charter and court law to maximize stockholders' financial returns, it is absurd to expect otherwise. Here as elsewhere, however, the absurd has been normalized "to compete in the global market".

Until scientific integrity is restored, non-commodity research is purged by lack of funding support. Since non-funding is a sentence of death to higher research upon which even graduate supervision now depends, researchers go along or forfeit career – a regime more effective than direct censorship. Yet since the defining nature of the search for truth is to research and conclude with no such external biases and interests controlling inquiry and conclusions, requirement of the opposite rigs the science in advance. Independent impartiality of findings is undermined from the start. Thus when scientists' findings *do* conflict with the interests of the corporate party contracted with and not suppressed, the scientific position and resources of the scientist are suspended and perhaps destroyed – with academic administration backing the external commercial interest not the truth of the science (as the eminent case of Dr. Nancy Olivieri of the University of Toronto, a senior medical pediatric professor and researcher, demonstrated internationally). Such remains the regime of commodity science today.

Behind this external control of science by private gain lies an historical pattern which has structured for cooked science at the system level: (1) abdication and privatization of independent government testing of commercial products like pharmaceuticals, foods and beverages; (2) the commercialization of research in universities as described in *12.5.3.2.*; with both of these (3) following very soon after the transnational passage against electoral majority of the unilateral corporate rights system explained in *11. The Unseen Global War of Rights Systems.* System changes (1), (2) and (3) have operated in interlock with the private money sequence program across borders. Every step of the new corporate regime, we may observe, conforms to the ruling value syntax of self-maximizing money returns decoupled from effects on life support systems.

12.11.2. To the question, "who will fund the science if not the large corporations?" the answer is that by far the greatest funds for scientific training and research are paid from public budgets – well over 90% all in. At the same time, scientists and scientific communities are the central managers of science training curricula, methods, and protocols within educational and research bodies as well as highly placed inside governments and policy-making streams. Scientists are in a far better position to rule out science rigged for external demands than anyone else, but the reigning value syntax of atomic self-maximization of money-value gain has re-set scientific method and rationality to serve it. In the words of a deputy minister of education in 1988 who later headed a national research council, "I contend that the one global object of education must be to develop new services which we can offer in trade in the world market".

12.11.3. The Ultimate Problem: No Life Coherence Principle of Scientific Rationality

The most basic problem is that *the demarcating criteria of science and rationality lack a lifecoherence principle to rule out systemic distortion of the sciences*. Without consistency with the laws of reproduction of human life and life conditions themselves, a cumulative system destruction is predictable. This is an ultimate structural irrationality. The distinction between life and death itself is ruled out. At the same time, "the queen of the sciences", philosophy, reinforces the problem by its own systemic life disconnection.

12.11.3.1. Analytic Epistemology: Not a Solution But An Exemplar of the Disconnection

At first, scientific theory of knowledge might seem to offer a solution. Yet its speciality, "analytic epistemology", remains within the same meta model of understanding as commodity science - that is, atomic selves disconnected from common life requirements and support systems. This is a confinement explained at a more general level in 3.1. The Underlying Problem of Moral Philosophy: Decoupling from the Life-Ground, 6.16. The Core Disorder of Contemporary Thought: Life-Blind Rationality, 8.13. Contemporary Critical Theory: Turning Away from Ontology and Base, 10.11. Justice Theory Without Life-Ground, Life Plans without Life, and 12.6. Prisoner's Dilemma As Paradigm: The Life-Decoupled *Rationality of Logic, Science and World System.* Analytic epistemology is another exemplar. Debates circle around abstract atomic individuals within a material void in which meanings are confined to the individual head or sense receptors. The deepest disagreement in the field is whether knowledge corresponds to the sense-inputs of individual experience ("correspondence theory"), or is consistency within bodies of thought ("coherence theory"). Biophysical reality outside this world of atomic heads and sense receptors does not exist as a considered precondition. No longer doubted, it is abstracted away, as in 9.1. The Egocentric Circle: How the World Disappears in Philosophy and Economics. The unexamined macro result is that the dynamic first major premise of sound knowledge is decoupled from in self-referential deductions. The world of life means supports is conceived as "the furniture of the universe", chairs and tables for atomic selves.

In general, the world's dynamic life support systems which must be taken account for any knowledge to be sound does not exist for analysis. The closest we get to connection to the world is the demonstration by Harvard's Hilary Putnam that a "brain in a vat" cannot explain what we *refer to* in our experience. His move to "the *preconditions* of reference" is a step in the right direction, but lacks substance of meaning.

12.11.3.2. The Failure of Pragmatism to Restore Connection to Life Support Systems

Pragmatism may seem to meet the problem. It is a theory of knowledge which may be most simply described as "it is true if it works". There are three major epistemological variations

on it provided by the twentieth-century American philosophers Charles Peirce, William James, and John Dewey and those influenced by them. Key objections have been issued by F.H. Bradley, Bertrand Russell and G.E. Moore respectively. Pragmatism's realm of practical interests does not comprehend all areas of truth and knowledge – it is "inherently incomplete". What works or is useful may be "plainly false" (e.g., belief in a tooth fairy). What is useful today may not be in the future – utility is "changeable".

Here the objection is more fundamental. Pragmatism reconnects to the world, but in an instrumentalist way in which the meaning or objective for "what works" is vague or can be anything at all. Where pragmatism is social, the search for what works is most dominant in industry, the market and war. *Whatever pays off is true.* More specifically, this is the underlying epistemology of the self-maximizing money sequence of value. It relates to the world unlike traditional epistemologies, but in a way in which truth can come to be equated, as it has, to what profits private investors or is bought by consumers. As we have seen, the results in reality of this ruling meta program have been to despoil life and life support systems without evident limit.

Save for John Dewey – and Marx, if we count him a pragmatist – pragmatists are confined within the atomic universe of individuals in interface with what each acts on and whether it succeeds at the level of individuals. Yet the pro-terms and criteria used by pragmatists apply also to the system level of private money sequencing which they do not examine – the operation "achieves success", "works", "satisfies", and is "validated in its ability to achieve the purposes at issue" within its parameters of aim. Pragmatism, in short, suffers from a similar indiscipline of private goal as commodity science. The ultimate issue of what enables rather than disables life and life support systems is missing. This criterion is what is required.

What has gone wrong results from what is absent. None of the pragmatic-success descriptors meets the problem of life-system incoherence. What 'works', 'satisfies', 'pays off', 'links experiential conditions of application with observable results' may in fact cumulatively destroy unseen life, life supports and the world itself *unless* there is a life-coherence principle by which to validate the purpose and results.

12.11.4. How to Recognize Satisfaction or Violation of the Life Coherence Principle

The unseen flaw of scientific method *as such* is that it too has no internal principle of consistency with universal life support systems – "to be in accord with reality" in the deepest sense. Partial science and rationality blinker out this wider plane of coherence. What most distinguishes scientific method – openness to disconfirming evidence and resolute attention to anomalous outcomes – has thus been abdicated where these standards reach furthest and count most. Science cannot be in accord with reality until it takes this excluded baseline of all human reality into account. More exactly, scientific conclusions are not valid until *tested against common life support requirements*. They are false insofar as they contradict these requirements in principle or in downstream effects.

To the extent that life-blind 'science' destroys life and life support systems through time, it

is evil as well as false. In monstrous cases where the threat of such destruction may be pleaded as necessary – as Einstein argued for to ensure the discovery of the A-bomb before the Nazis – this is not an exception to the principle, but a realization of it. That is, it was the prior discovery of the atomic bomb, not destructions by it that Einstein supported. He was opposed to dropping the nuclear bomb on Japanese cities once this mission was accomplished. His position remained in accord with the life coherence principle, but not policy. As for homicidal war in general, it can be consistent with the life-coherence principle only if more inclusively life enabling by waging such war than not, and only up to this rare point of permission (as explained in *5.14. A Fault-Line of Human History: The Practise and Excellence of Armed Force* and *5.15.6. Life-Serving Models of War*).

All of this follows from life-value onto-axiology, but follows too from life-coherent science. Science which is indifferent to whether its research and its technological enactments are consistent with or contradictory to human and ecological life systems is bad science – as we intuitively know, but lack the methodological principle to identify. Commodity science which is structurally biased towards a merely private interest with no predictive account taken of its results after sale is merely blind technique. Since the ruling private interest today externalizes all costs in following the self-maximization criterion of rationality, what may be cumulatively disastrous for human and ecological life systems is boxed out. Such exclusion of contra-indicative effects entails incapacity to self correct in light of it. It is bad science *ad seriatim*.

12.11.5. Scientific Method In Accord with Reality Rather Than Excluding It

For a fateful example of continuously bad science, the currently regulating assumption of economic science that the energy and sink resources of the earth are unlimited is a false assumption which ignores the physical limits of the planet. We now know this. Yet this very premise is still logically presupposed by the commodity-system growth imperative and its scientific models. Dominant economic science recognizes no physical limits of planetary reality even now. This is life-incoherent science in far-reaching form, *but with no revision required by scientific method itself.* How are such false circles to be re-set to coherence with terrestrial reality? As long as there is no principle of scientific method to require taking account of what has been blocked out, the most basic contra-indicative evidence there can be is *invisible*.

Consistency with the test of terrestrial reality itself is blinkered out. One underlying question to any scientific enterprise reveals its coherence or incoherence with reality. *Does the scientific objective and method include consistency with life support systems by its proposed advance?* This is the question which remains excluded from scientific method. All the while on the ground, slow-motion collapse of universal life infrastructures proceeds by the myriad sciences engineering it. This is the fatal life-blindness of scientific method and world civilization itself.

12.11.6. The Missing Ground Principle of Full Coherence

Observe that it is only when we widen the framework of consistency with fact and other statements to *consistency with universal life requirements* that reason recovers its missing base. Any sane individual knows that to systematically ignore one's own life requirements is irrational. For humanity to do so is limitlessly more so. Yet there is no resource of scientific reason to identify this ultimate incoherence. Higher research and learning are lost in specialist techniques. Logic and philosophy have abandoned factual bases in self-referential conceptual schemas. Philosophy and the physical sciences have indulged trumped-up inferences of space colonies to escape to. Hollowed-out models precede a hollowed-out world. North American indigenous prophecy long ago counselled: "When all the trees have been cut down, when all the animals have disappeared, when all the waters have been polluted, you will discover that you cannot eat money". Scientific rationality appears not to have caught up.

The first major premise of thought and the material base of planetary life itself have been engineered out of view. Philosophy originally led the error as explained in 7.9. Philosophers Lead the Paradigm Shift to Universal Mechanism and the subsections cited in 12.10.3. Whatever the cause, scientific reason must be re-set to recognize this first premise of life support systems it has long repressed. What has been excluded must be included - the universal life support systems whose preconditions must be taken into account for full coherence of any claim to truth. There are three general criteria of truth versus falsehood and ignorance. The first two are known, but the third has been missing. There is (1) consistency of assertions with established evidence, what scientific method has mastered. There is (2) *consistency of inferences with premises*, what philosophical logic and analytic philosophy have mastered. And there is (3) consistency of objectives and conclusions with *life support systems* which have been recognized by neither. There is no full coherence without consistency of all three. One cannot deny any of these three requirements of reason without absurdity. It cannot be rational or scientific to ignore or flout empirical evidence, to be inconsistent in claim, or to violate the requirements of universal life support systems. The most primary consistency - that without which life capacity is always reduced or destroyed is now due.

Glossary

Agent-relative – A standard philosophical term signifying individual choice: as in "agentrelative ethics" which assumes that value agency is confined to individuals.

Analytic philosophy – An umbrella term covering any school or method of philosophy for which logical rigor and distinctions are priorized and referents restricted to linguistic entities.

Anti-foundationalism – A generic term for the dominant trend of philosophy over the recent century whose unifying characteristic is denial of any universal truths or values.

A-priori – derived independently of sense experience e.g., 2+2=4. Truth by definition and tautological deduction is the mathematical model, but presuppositions are often falsely assumed a-priori.

A-posteriori – "After the fact", dependent on sense experience.

Axiology – From the Greek, *axioma*, "what is thought to be worthy", the ultimate, but undertheorized category of value reason, ideally building from rationally self-evident bases or *axioms* of value a complete system of value (aesthetic, epistemological, moral, etc.) with unlimited validity across domains. Onto-axiology is axiology which grounds in the nature of reality. See **Onto-Axiology.**

Capital – Wealth that can be used to produce more wealth without loss by consumption or waste.

Capitalism – A socieoeconomic system in which all values are conceived in money terms and maximum sale of commodities for maximum private profit is the ultimate governor of thought and action. The adjective money before capitalism is required to ensure distinction from other forms of capital. See **Ruling Value Syntax**.

Civil commons – A unifying concept to designate social constructs which enable universal access to life goods. Life support systems are civil commons so far as society protects and enables their reproduction and provision for all members.

Coherence theory of truth – that a belief is true so far as it is consistent with a whole system of beliefs. See **Life coherence principle**.

Collective agency – A concept which is little understood in philosophy and the social sciences which dominantly focus on, respectively, agent-relative methods of analysis or aggregates of individual choices, but best understood by the rule systems by which people live

Collective life unconscious – Distinguished from Karl Jung's psychoanalytic category of the "collective unconscious" as the collective *life* unconscious – what Jung refers to as Mephistopheles, the "shadow self" and "true spirit of life against the arid scholar" of Faust, which is expressed in destructive form because it is unrecognized and repressed.

Common life interest – A concept which disambiguates the categories of "the common interest", "the public interest", and so on to specify what these concepts normally omit, common life support systems.

Communitarianism – A concept which has become attached to those philosophers who reject the atomic-individual rationality of liberal thought to ground in substantial social relationality (e.g., Alastair MacIntyre, Charles Taylor and Michael Sandel), but with an inability to move beyond constituted attachments and received ways.

Corporation – A changing pool of money owners defined by a unitary legal goal of profit maximization for shareholders and their "limited [or null] liability" for the corporation's actions. The corporation is the sole right holder as "the investor" in transnational treaty legal mechanisms whose rules govern the contemporary "global market", and in America is recognized as an artificial "person" under law with important rights of individual persons. Above the lines of natural life and death – "lacking both a body to be kicked and a soul to be damned, they therefore do as they like", in the words of Lord Chancellor Turlow (1731-1806) – the corporation is the sole agent inducing obligations in international trade treaties since 1988 from whose articles both labor and citizens are excluded. Here omnibus rights are granted to sue governments for "loss of profit opportunity" through binding and punitive tribunals with unlimited powers of financial penalty. In domestic law, the private corporation also institutes its own charter of incorporation as distinct from its original reception of power by sovereign government conferral.

Correspondence theory of truth – In general, the ancient idea that claims must correspond to facts to be true. This idea has given rise to questions about what are the criteria of "facts'" and "correspondence", to which the reigning answer is scientific confirmation. See **Validity.**

Collective agency – A concept which is little understood in philosophy and the social sciences which dominantly focus on, respectively, agent-relative methods of analysis or aggregates of individual choices. It is best understood by the rule systems people (s) make or follow.

Common life interest – A concept which disambiguates the categories of "the common interest" and , "the public interest" to specify what these concepts normally omit, shared life support systems.

Continental philosophy – A standard way of distinguishing contemporary European philosophy and method from **Analytic philosophy**. See also **Existentialism, Marxism, Phenomenology,** and **Postmodernism**.

Deep ecology – A movement founded by Arne Naess whose leading ideas against environmental resourcism are that "the well-being and flourishing of non-human life have value in themselves independent of their usefulness for human purposes" and "humans have no right to reduce the richness and diversity of life forms except to satisfy vital needs" (a term left undefined).

Consequentialism – Often equated to utilitarianism, but strictly holding that the good or bad is to be found in its consequences, not its principle of action or intention.

Deontological ethics – Essentially, "duty ethics", standardly opposed to utilitarianism insofar as it holds that good lies in the principle or duty which action embodies, not its consequences of happiness

Desire theory of value – A concept to designate any theory of value which conceives all values in terms of individual desire objects.

Determinism – A problematic term typically, but falsely, counterposed to freedom of choice. The meaning adopted by life-ground onto-axiology is to delimit (de-termine) a known range of material possibility within which individual or collective choices can occur: otherwise put, individual and social freedom of choice within material limits.

Development - A central term of value in contemporary global discourse which does not

distinguish between opposed forms of development or growth – for example, more commodities sold for profit (market development/growth) and more means of life available for people's lives (human development/growth).

Dualism – A central and controversial doctrine in philosophy in which reality is conceived as divided into two unbridgeable and incommensuarble orders of being – most famously, mind and body, *res cogitans* and *res extensa*, the dualism instituted in Western philosophy by Descartes. Dualist divisions include reason-emotion, subjective-objective, and spirit-matter

Either-or reduction – A regulating structure of normative thinking which assumes the logical form of p *or* not-p ("the excluded middle"), thereby eliminating the range of other value possibilities, including degrees of each in mutual inclusion.

Epistemology – This is a central field of philosophy concerned with the nature, grounds and limits of knowledge: a generally unrecognized realm of value judgement and theory insofar as judgements rest on elective norms of "true" and "false" and "valid" and "invalid".

Ethics – One of the three recognized basic areas of philosophy: that which is concerned with what is good and bad in human action, including competing positions of utilitarianism, deontological/formalist/duty ethics, emotivism/non-cognitivism, evolutionary ethics, intuitionism, naturalism, perfectionism, phenomenological ethics, postmodern ethics, subjectivism/pluralism/relativism, self-realization/teleological ethics, and virtue ethics. Perhaps the most enduring received meta-ethical debate is between consequentialism (judging by consequences, e.g., utilitarianism) and non-consequentialism (judging by the intrinsic principle of judgement and action e.g., Platonism and Kantianism). Moral philosophy is often equated to Ethics, but is in principle more restricted in reference to ought-to statements which entail prescriptions or prohibitions whose violation is thought to deserve guilt or punishment.

Existentialism – Classically defined by Jean-Paul Sartre as "existence precedes essence", which means that human choice of what one does (existence) precedes any set fate, determinism, role or external design (essence) ruling out this choice, with those denying their responsibility of choice as guilty of "bad faith" (*mauvais fois*).

Fields of life value – This concept refers to the fields of thought (concept and image), felt side of being (sentient and affective), and action (organic movement through space-time), the triune parametric of all value whatever as explained by the Primary Axiom of Value.

Globalization – A concept which admits of many different meanings but whose dominant meaning is globalization of capitalism. See **Capitalism** and **Value Syntax.**

Group-mind – The manifestation of a life-blind ruling value syntax regulating consciousness across individuals and groups. See **Ruling Value Syntax**.

Human value identity – This is a concept which understands value identity as that which is *identified with* by a self as of ultimate value. It can take polar opposite forms such as the identification of a person with his powers of money demand or, at the other pole, a person or society which identifies with universal organic life requirements.

Inclusivity principle - The more coherently inclusive the taking account of in thought,

feeling and action, the higher the value understanding.

Intrinsic and instrumental value – What is a good in itself and what is good as a means.

Internal and external goods – The basic distinction between what is a good in itself and what is good as an external possession.

Life-blind norms – A characteristic tendency of the ruling value systems of established societies and of their received ideologies to blinker out the life-disabling effects of their regulating principles.

Life coherence principle – The ultimate principle of validity whereby conclusions must be consistent with the requirements of universal life support systems as well as evidence and other statements.

Life-Ground – Most simply expressed, all the conditions required to take your next breath. Axiologically understood, all the life support systems required for human life to reproduce or develop. The life-ground is to be distinguished from the concept of "the life-world" which refers to background beliefs.

Life sequence of value – The process whereby any body of life becomes more life by means of life: a process which admits of regressive, reproductive and progressive modes and degrees, each measurable by the criteria of more/less fields of life enabled or enjoyed through time.

Life standards – Those principles and laws which protect and enable human and ecological life systems.

Life sequence of value – The process whereby any body of life becomes more life by means of life: a process which admits of regressive, reproductive and progressive modes and degrees, each measurable by the criteria of more/less fields of life enabled or enjoyed through time.

Life standards – Those principles and laws which protect and enable human and ecological life systems.

Life-value metric – more/less life range in any domain or degrees of life function or expression, with margin gains or losses in any or all with respect to prior states the measure of life-value progress or regression.

Life-value onto-axiology – General term for a value-system which regards life and means of life to more coherently comprehensive ranges of life as the sole real good, including the life support systems required to enable this process.

Linguistic idealism – The dominant tendency of philosophy to decouple language from its referents within autonomous and self-referential discourses.

Linguistic turn – Major philosophical movement of the twentieth century associated with the work of Ludwig Wittgenstein, but moving far beyond Wittgenstein and his school in its influence (e.g., anti-foundationalism, postmodernism). By confining philosophical problems and discourse to issues of language or sign systems, the l.t. implicitly disconnects philosophy and reflective inquiry from the material problems of the world.

Mechanical reduction – the dominant model of life-systems as mechanical systems which rules out non-mechanical life properties (e.g., the irreversibility of life processes and non-substitutability of its constituents and conditions).

Meta-Ethics – The study of the nature of moral judgement: conventionally preoccupied with the logical status of ought and taxonomies of competing theories in exclusion of substantive moral issues.

Metaphysics – The ultimately regulating principles of existence (ontology) and knowledge (epistemology) which typically lack grounding in universal life support systems of causation, choice and identity

Money sequence of value – Using anything whatever as means (including money derivatives) to turn private money sums into greater quantities in reiterated choice paths of money-value-adding which adopt myriad transnational forms as "globalization" ($\hat{a}AII$ as Means \hat{a} \$1 ->2-> n)

Moral Philosophy – Moral philosophy is often equated to Ethics, but is in principle more restricted in reference to ought-to statements which entail prescriptions or prohibitions whose violation is thought to deserve guilt or punishment (e.g., the prescription/prohibition not to harm life). See also **Ethics**.

Onto-axiology – A concept which supercedes the standard reductionist split between ontology (the philosophy of being) and ethics/axiology (general theory of good and bad).

Objective Values – Values which are independent of individuals' affirming them (e.g., the values of universal life support systems).

Onto-Ethics/Onto-Axiology – A primary concept of life-ground value theory in which the standard and reductionist split between ontology (the philosophy of being) and ethics/axiology (critical theory of good and bad) is overcome in a non-divided unity of understanding: such that the analysis of the ultimate structure of being as such (ontology) and of the ultimately regulating principles of good and bad (ethics/axiology) are integrated into one field of philosophical understanding.

Pareto Optimum (or Pareto efficiency) – A standard ideal of philosophical and economic rational choice theory in which no-one can be made better off without making someone else worse, based on dyadic exchanges of assets with contents arbitrary and external conditions ruled out.

Objective Values – Values which are independent of individuals' affirming them (e.g., universal life support systems like the earth's atmosphere).

Onto-Axiology – A primary concept of life-ground value theory in which the standard and reductionist split between ontology (the philosophy of being) and ethics/axiology (critical theory of good and bad, including justice and injustice) is overcome in a non-divided unity of understanding: such that the analysis of the ultimate structure of being as such (ontology) and of the ultimately regulating principles of good and bad (axiology) are integrated in principle.

Primary Axiom of Value – An axiom formally expressing the first and ultimate principle of all value and disvalue, and the measures of each across time, place or culture i.e., x is of value if and only if, and to the extent that, x consists in or enables more coherently inclusive thought/felt being/action. See also **Fields of life value**.

Proceduralism – A generic pattern of leading philosophies of value which assume that universal values can only be implicit in or decided by procedures of argument (e.g., "contractarian" models of justice and norms of "the ideal speech situation"), and whose rational "procedures" distinguish the different schools.

Profit – The positive difference between input of value and output of value whose dominant type is private money-capital inputs and private money capital outputs to maximum gain, but in principle can include social profit from the positive difference between public investment and life-value gain of citizens.

Relativism – A generic term for the view that there are no objective or universal values because all values are by their nature relative to the contingent cultures, preferences, individuals, practices and world-views in which they are embedded.

Ruling Value-System – See **Social value system**.

Second-order Shift – A move from first-order value-system (e.g., to maximize pecuniary possessions or equivalents) to a second-order level of value understanding and choice within which the first-order value-system is only one regulating possibility. This is a logic of distinction which is straightforward in non-normative matters (e.g., the first-order of red and blue, and the second order of color), but not at the normative level wherever a ruling value program is assumed as without alternative.

Social justice – The baseline and measure of social justice is defined by the constant principle of its opposite: suffering from need by the life-capacity loss entailed by the deprivation of life means. Social justice is the overcoming of the various forms of this iniquity.

Social Value System – A society's value-system which is normally presupposed by those governed by it and which ultimately regulates the decision norms and goals of a society's dominant social institutions, the individual roles within them, and the thought structures of those internalizing its regulating assumptions and conclusions. Also referred to as "ruling v.s."

Transcendental deduction – Logical analysis in which the necessary presuppositions of the intelligibility of a claim or position are deduced as self-evident (eg., the necessary presupposition that all humanity is European in the statement "Columbus discovered America").

Truth – Truth is not an end state, but a process of more coherently inclusive taking into account: with way stations of soundness, that is, consistency with available evidence, other statements and requirements of life support systems. See also **Validity.**

Universal life goods – All goods *without* which human life capacities are reduced or destroyed (eg., breathable air, potable water, means of expression for free speech).

Validity – By life-coherence principle, requires not only consistency of statements with each other and empirical evidence, but with the reproduction of life support systems

Value compossibility – The compatibility of formerly competing or traded-off goods yielding more coherently inclusive value provision (e.g., housing development by preservation of natural environments).

Value neutrality – A standard which is claimed when a value-system is so deeply taken for granted that its outcomes appear as non-normative although achieved by the regulation of strict criteria of value and value judgement (e.g., the canons of scientific method).

Value syntax - Organizing principles of pro-and-con meaning, prescription, position and transformation which regulate a value system, but may be invisible to those who presuppose it.

In the ruling value syntax of contemporary global society, the subject is money capital whose verb is seeking to become more without upper limit and whose modifiers are moneydemand and its equivalents ("the money sequence of value"): with competing money capital subjects and the human and natural resources they purchase and exchange always used to become *more* money capital. Rationality in this onto-axiological grammar is regulatively presupposed as (i) self-maximizing strategies in (ii) conditions of scarcity or conflict over (iii) desired payoffs at (iv) minimum costs for the self to (v) win/gain more.

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Darwin, C. (1936), The Origin of Species by Means of Natural Selection or the Preservation of Favoured Races in the Struggle for Life. 549 pp. New York: Modern Library [Darwin's classical statement provides the most implicitly dominant value-system framework of our era which is analyzed in the Philosophy and World Problems Theme Essay as an implicit general value theory of what is and is not "fit" to live in the human condition.]

Dawkins, R. (1976), The Selfish Gene, 224 pp. Oxford: Oxford University Press.[This is the most widely influential text of contemporary evolutionary biology featuring explanation by "the selfish replicators of genes and memes" by whose "universal ruthless selfishness" human action is explained, with individual lives merely temporary bearers of "gene machines". Along with the dominant economic paradigm of market self-maximizers in brutal global competition, it forms a dominant scientific framework of contemporary thought and assumption.]

Deleuze, G. And Parnet, C. (1977/2002), *Dialogues*, 276 pp. London: Athlone Press. [Translated from the French, these dialogues are useful in capturing the prolix meaning of Deleuze's oeuvre.]

Dennett, Daniel (1995), *Consciousness Explained*, 511 pp. Boston, Little, Brown [This the standard work in philosophy which reduces consciousness to functional states of the brain.]

Derrida, Jacques 1981. *Positions*, 114 pp. Chicago: University of Chicago Press [This is one of many books by the contemporary leader of postmodernism who argues the principle of undecidability with its entailment that any universal claim or truth collapses into unseen differences of perspective, positions and interpretations.]

Descartes, R. (1637- 41/1996), trans. Weissman, D. And Bluhm W.T., *Discourse on method* and *Meditations on first philosophy*. 383 pp. New Haven, Conn.: Yale University Press [Often conceived as a father of modern philosophy and science, Descartes' work has been most important criticized in its dualistic conception of human being – the mind or *res cognitans* as the immaterial and indivisible substance, and the body or *res extensa* as the material substance or body involving nothing but "divisions, shapes and motion" (thus animals are only mechanical automata). Related to this dualism was the Cartesian emphasis on quantification as the method for understanding all corporeal for understanding all corporeal reality, an empirical mathematical mechanism which remains a dominant model of scientific understanding into the present.]

de Wal, Franz (2009), *The Age of Empathy: Nature's Lessons for a Kind Society*, 304 pp. London: Crown Publishers.[Like Kropotkin over a century earlier, argues against the dominant view of the relentlessly selfish competitive instincts of human and natural life as one-sided, showing empathy to have evolved since the emergence of mammals.]

Dewey, J. (1963), Liberalism and Social Action, 93 pp. New York: Capricorn [From the best known twentieth-century advocate of "liberal values", this work is revealing for its now taboo conclusion that the cause of liberalism and individual liberty requires society to "socialize the forces of production".]

Doray, B. (1988), *From Taylorism to Fordism: A Rational Madness.* 229pp. London: Free Association Books. [As the title suggests, this work provides extensive to demonstrate the systematic suppression and elimination of inner life within industrial mechanist systems.]

Doyle, Ian and Gough, Len (1991), *A Theory of Human Need*, 365 pp. New York: Guilford Press. [This work makes the important distinction between needs and need satisfiers, but without any underlying principle of need across cultural differences.]

Dworkin, R. (1978), *Taking Rights Seriously*, 371pp.. Cambridge Mass: Harvard University Press.[This well-known work typically "places the individual at the center" arguing that individual rights "always trump" other evaluative considerations, with norms, morality and justice understood within a system of competing individual rights as fundamental.]

Edgeworth, Frances (1881[1932]). Mathematical Psychics, London: London School of Economics. [This is the first work to explain the mechanics of the neoclassical paradigm of value: "The conception of man as a pleasure machine may justify the employment of mechanical terms and mathematical reasoning in social science".]

Edwards, Paul (1967), Philosopher's Index, 8 volumes. London: Macmillan [The most

comprehensive and detailed encyclopedia of philosophy extant.]

Einstein, Albert (1954), *Ideas and Opinions*, 377pp. New York: Crown Publishers [This is a comprehensive and insightful collection of Einstein's writings, including his towering overview essays on the development of science since Newton and its entity-field and phenomenological-mathematical transitions. His view that "intoxicated joy and amazement at the beauty and grandeur of the world – – – is the feeling from which true scientific research draws its spiritual sustenance" describes the felt side of being which science normally excludes.]

Epstein, Samuel (2005). *Cancer-Gate*, New York: Baywood Press. [This is an expert explanation of the environmental causation of the many-levelled cancer epidemic, and repression of its meaning in cancer institutes and high-end research.]

Fleck, Ludwik (1929/1979), *Genesis and Development of a Scientific Fact* (trans. Bradley F. and Trenn T.), 121 pp. Chicago: Chicago University Press [This is the first work in scientific theory which calls into question the correspondence principle of truth in science, showing how a received "thought system" of science – now called a 'scientific paradigm' – can structure facts so that what does not fit the received scientific view is blocked or explained away.]

Foucault, M. (1984), *The Foucault Reader* (ed. P. Rabinow), 390 pp. New York: Pantheon. [Foucault focuses on historical contingency and repressive nature of scientized institutions whose genealogy of knowledge/power axes he deconstructs and whose cruel practices he discloses with erudite and clinical detachment.]

Freire, Paulo (1967), *Pedagogy of the Oppressed*, 243 pp. Boston: Beacon Press. [This is a contemporary classic in the philosophy of education and liberation theory.]

Freud, Sigmund. (1962-74), eds. Strachey J. et al, *Standard Edition of the Complete Works of Freud*, 24 vols. London: Hogarth Press and the Institute of Psychoanalysis. [This edition contains all of Freud's psychoanalytic science which remains within presupposition of existing social order and psychopathology at the atomic level.]

Fromm, Erich (19860, For the Love of Life (trans. H.G. Shultz) 152 pp. New York: Free Press. [This is a representative text of the prolific but now ignored critical theorist, Erich Fromm, who coined the concept of "biophilia" and analyzed the psychopathologies of contemporary society.]

Gadamer, H.G. (2003) A Century of Philosophy. 152 pp. New York: Continuum Press. [This is an accessible account of the author's work in hermeneutical philosophy over almost a century and the necessary cultural "prejudices" of presupposition he supposes in all interpretation.]

Gandhi, M. (1935/2000), *The Bhagavad Gita according to Gandhi* 245 p. Berkeley, Ca.: Berkeley Hills Books.[Gandhi conceives the dynastic war of the Gita as an allegory for the inner war of the soul between the divine atman and the selfish forces of avidity.]

Georgescu-Roegen, N (1971), *The Entropy Law and the Economics Process*, 277pp. Cambridge Mass: Harvard University Press. [This is an unanswered critique of neo-classical economics, "the new economics", by a trained physicist and economist demonstrating that the reigning model of economic science violates the second law of thermodynamics.] Glasbeek, Harry (2002), Wealth By Stealth: Corporate Crime, Corporate Law and the Perversion of Democracy, 286 pp. Toronto: Between the Lines Press. [This work by a professor of law explains how the law protects corporate entities from rules and regulations that bind ordinary citizens to the virtual exclusion of any responsibility beyond stockholders.]

Gould, S.J. (1989) *Wonderful life : the Burgess Shale and the nature of history*, 347 pp. New York: WW. Norton. [A distinguished paleontologist examines the long extinct vertebrate world of the Burgess shale fossils in wider concern to rebut evolutionary-tree theory.]

Hartmann, Nicolai (1950), *Ethics*, 821 pp. London: Allen and Unwin. [Originally published in Germany as Ethik in 1926, the author follows an ancient philosophical tendency since Plato to conceive moral values as akin to pure mathematical forms.]

Heidegger, M. (1977), *The Question of Technology and Other Essays* (trans. Lovitt W), 182 pp. New York: Garland. [In this influential work, Heidegger explores the lamentation that "everywhere we remain unfree and chained to technology" (p. 5), an explanation in which technology's economic value selector and regulator is typically blocked out.]

Heraclitus (1987), *Fragments*, (trans. Robinson, T. M. as *Heraclitus, of Ephesus*), 214 pp. Toronto : University of Toronto Press [Text and comments on arguably the first physical scientist whose recognition of perpetual change by conflicted tendencies is most prominent.]

Hobbes, Thomas (1651/1958), *The Leviathan*. Parts One and Two, 299 pp. New York: Liberal Arts Press. [A first classic of the modern canon, Hobbes argues on a mechanistic basis that men are matter in motion moved by appetites and aversion, above all towards "power after power that ceaseth only in death" whose generation of interminable conflicts and war breeds an existence which is "nasty, brutish and short" until all yield up their powers unconditionally to an absolute sovereign, "the Leviathan" which "bears their persons" and imposes the peace by which all can live in fear only of it.]

Hodgson, Bernard (2001), *Economics as Moral Science*, Heidelberg: Springer Press. [A scholarly critique of formal consumer choice theory which lays bare its dehumanization.]

Honderich, T. (1995), *The Oxford Companion to Philosophy*, 1009 pp. Oxford: Oxford University Press. [A comprehensive and reliable dictionary of philosophy by experts in the field with useful bibliographies and philosophical maps.]

Hume, David (1960/1888), A Treatise of Human Nature , 709pp. Oxford: Clarendon Press [Hume's classic study marks a turning point in philosophy towards what is now called "instrumental reason", characterizing the relation of reason to the passions as the opposite to the classical conception of reason as ruler from Plato to Spinoza: "reason is the slave of the passions, and can never pretend to any other office than to serve and obey them": a prototype position of modern rationality which posits rationality as self-maximizing choice of desire objects.]

Huxley, Aldous (1956/1990), *The Doors of Perception-Heaven and Hell*,185 pp. New York: Harper and Row. [Deploying William Blake's concept of "the doors of perception", this is Huxley's classic account of epistemological experimentation with mescalin-peyote in which "the brain's reducing valve" of habit-formed selective perception is suspended with opposite possibilies of experience, "heaven and hell".]

International Forum on Globalization (IFG) (1998). *The Siena Declaration On the Crisis of Economic Globalization*, Siena, Italy, September, 1998. [As cited in the text.]

James, William (1902/1990), *The Varieties of Religious Experience*, 517 pp. New York : Vintage Books. [James here combines his scientific pragmatism with validating recognition of religious experience leading to the notion of "a mother sea of consciousness" as a dynamic "finite God".]

Jonas, Hans (1966), *The Phenomenon of Life: Towards a Philosophical Biology*. 303pp. New York: Harper and Row. [A rich phenomenological study of outlooks on life and the human condition which is insightful on the modern alienation between the natural organic world as lifeless mechanism (*res extensa*).

Jablonka, E. and Lamb, M. (2005), *Evolution in Four Dimensions*, 472 pp. Cambridge Mass.: Bradford Books/MIT Press.[This book importantly argues against a received one-way dogma that evolution is a developmental system in which not only genes but heritable variations play a role in evolution through epigenetic, behavioural, and symbolic processes which can modify DNA sequences themselves by selecting which genes switch on and off.]

Jackson, T. (2009), *Prosperity without Growth*, 264pp. London: Earthscan. [Herman Daly's Forward captures what received economic science, economies and growth development have ignored – *"thoughput*, the metabolic flow of useful matter and energy from environmental sources through the economic subsystem (production and consumption) and back to environmental sinks as waste".]

Johnstone, D.B. *et al* (1998) "The Financing and Management of Higher Education: A Status Report on Worldwide Reforms, 56 pp, Washington, D.C.: World Bank. (This influential work prescribes "entrepreneurship" by "institutions, departments, and individual faculty" to "improve education" and "benefit societies" without response to arguments of contradictions in principle between the nature of higher education and research and commercial models.]

Kant, I. (1992) *Cambridge Edition of the Works of Immanuel Kant*, 15 vols. Cambridge: Cambridge University Press. [This includes all Kant's work featuring *inter alia* his onto-axiological schism of rationality from the realm of desires and market mechanism.]

Kripke, S. A.(1980), *Naming and necessity*, 172 pp. Cambridge, Mass.: Harvard University Press. [This exemplifies philosophy as both scientific and concerned with objective explanation of ultimate categories – here the concept and referent of "natural kinds" (i.e., names like those for water or the human species which retain their meaning in all contexts as "rigid designators", , *not* mere conventions but necessary in all worlds.]

Kropotkin, P. (1955), *Mutual Aid: A Factor of Evolution*, 362 pp. Boston: Extending Horizons Books. [This is a classical argument for cooperation as a factor of evolution as distinguished from Darwinian competitive struggle alone, providing a wealth of data of pre-capitalist cooperative social formations.]

Kuhn, T.S. (1962), *The Structure of Scientific Revolutions*, 209 pp. Chicago: University of Chicago Press. [This is canonical text on paradigm shifts in science following persistent

anomalies building towards crises in the "normal science" of the day.]

Lane, R.E. (2000), *The loss of happiness in market democracies*, 465 pp. New Haven, CT: Yale University Press.[This empirical study shows that rising income and growth negatively correlate with reported happiness after a line of sufficiency is exceeded.]

Lieber, J. (1975) *Noam Chomsky: A Philosophic Overview*, 192 pp. New York: St. Martin's Press. [This work explains Chomsky's linguistic theory and seeks to connect it to his analysis of public affairs via the unifying idea of an autonomously rational human nature.]

Locke, John (1690/1950), *The Second Treatise on Government*, 139 pp. New York: Liberal Arts Press. [Founding classic of liberal value theory arguing for private property by labor right, but negating labor and non-scarcity provisos by introduction of money.]

Mackie, J.L. (1977), *Ethics: Inventing Right and Wrong*, 249 pp. New York: Penguin.[This text is representative of the dominant subjectivist view of Ethics that values and moral principles are merely "preferences", with Mackie specifically arguing that any and all moral or ethical judgements of right and wrong, good or bad, are "false".]

Manno, J.P. (2000), *Privileged Goods: Commoditization and Its Impact on Environment and Society*, 252 pp. London: Lewis Publishers.[This is a definitive documentation by expert witness of the devastating effects of the commodity measure of efficiency on ecological systems.]

Marcuse, H (1964), *One-Dimensional Man*, 260pp.Boston: Beacon Press [Marcuse's most famous work which was a central text of the 1968 student uprisings in Europe and America, a critique of capitalist technological culture and its reduction of life to a totalizing consumer-management culture legitimated by scientific positivism.]

Marx, Karl and Engels, F. (1975-), *Collected Works of Marx and Engels*, 44 vols. (Eds. R. Dixon et al). New York: International Publishers [Marx's tension between ultimate normative concerns and scientific positivism is of greatest relevance to this study.]

McMurtry J. (1986) "The Argumentum Ad Adversarium", *Informal Logic*, VIII.1, 27-36. [Explains the underlying logical disorder of fallacies by diversion (ignoratio elenchi) as forms of switching the issue to an accepted enemy or adversary of the community addressed (e.g., "communist", "liberal", "unbeliever"), a track-switch of thought which is argued to be an widely regulating form of fallacious thought and social being.]

McMurtry, J. (1988) "The Unspeakable: Understanding the System of Fallacy of the Media", *Informal Logic*, 41:3,133-50. [This analysis sets out the general regulating framework of the "ruling value syntax" as a system of rules selecting against whatever invalidates the presupposed ruling order of control over society's means of existence, and for whatever validates it – in correspondence to the degrees of each.]

McMurtry, J.(1998), *Unequal Freedoms: The Global Market As An Ethical System*, 372 pp. Toronto and Westport CT: Garamond and Kumarian [This work lays bare the ethical assumptions and assertions of classical, neoclassical and contemporary ethical and political theory as well as policy of the "liberal market order" as a global value system.]

McMurtry, J. (1999), *The Cancer Stage of Capitalism*, 311pp. London and Tokyo: Pluto and Springer Press. [This study is introduced by a study of life-blind structures of thought since Socrates up to the current global system, and diagnoses the emergent world disorder as a carcinogenic autonomization of private money sequencing coupled with failure of social immune system to detect the derangement on the social level of life organization.]

McMurtry, J. (2002), Value Wars: The Global Market versus the Life Economy, 262pp. London: Pluto Press [This volume explains the underlying epochal principles of opposing value-systems in the 'new world order' across phenomena of wars, social system conflicts, ecological crises and public-sector meltdowns with a set of constitutional life standards for the global system.]

Merchant, Carolyn (1980), *The Death of Nature*, 292pp. New York: Harper and Row.[This work provides a prototype eco-feminist analysis of the images of modern scientific mechanism since Bacon and their violent usurpation of the prior central metaphor of 'earth as nurturing mother'.]

Michalos, A.C. (2007), "Logic, Scientific Method, and Quality of Life", in Philosophy and World Problems, edited by J. McMurtry in Encyclopedia of Life Support Systems (EOLSS) under the Auspices of the UNESCO, Eolss Publishers, Oxford U.K. [This is a definitive essay for the EOLSS project by an internationally renowned researcher and publisher in these fields.]

Mill, J.S. (1860/1996) *Utilitarianism*, 260pp. New York: Oxford University Press [This volume contains up-to-date commentary on the classic statement of utilitarianism. Mill's recognition of consistency with a "socialist order" are blocked out of contemporary market-utility science.]

Miller, Peter and Westra, Laura, eds (2002). *Just Ecological Integrity: The Ethics of Planetary Life,* Boston: Rowman and Littlefield. [Representative text of original work in environmental ethics by philosophers, social scientists and ecologists on the occasion of the Earth Charter.]

Mirowski, P. (2000), *Machine Dreams*, 540 pp. Cambridge: Cambridge University Press [This study tracks the machine model in contemporary market economic theory into the "automaton theater" of economic, military and decision-theory research, implicitly exposing the life-blind presupposition of limitlessly self-maximizing asset gain by market and military strategic rationality structured as a mechanical process.]

Monbiot, G. (2000), *Captive State: The Corporate Takeover of Britain*, 430 pp. London: Macmillan.[This analysis excels as a documented paradigm case of how contemporary states have been captured by private corporate power across ministries.]

Moore, GE (1909), *Principia Ethica*, 272 pp. Cambridge: Cambridge University Press. [This is the classic work of ethical theory of the twentieth century, and paradigmatically exhibits the atomic-agent premises and world disconnection which have typified the dominant analytic school of Anglo-American moral theory since David Hume.]

Nadjer, Z. (1975), Values and Valuations, 191 pp. Oxford: Clarendon Press. [Useful scholarly account of what value systems are which, as others in the formalist tradition, avoids discussion of any substantive value.]

Newson, J. And Pollster, C. (2010), *Academic Callings: The University We Have Had, Now Have And Could Have*, 388 pp. Toronto: Canadian Scholars' Press. [This collection of 29 essays by senior scholars across the sciences and humanities provides rich inside analysis of the corporatization of universities and higher research, including by Joel Bakan, Frank Cunningham, Len Findlay, McMurtry, Dorothy Smith, John Valleau/Paul Hamel, and Woodhouse.]

Nielsen, Kai (2007), "The Poverty of Moral Philosophy", in Philosophy and World Problems, edited by J. McMurtry in *Encyclopedia of Life Support Systems* (EOLSS) under the Auspices of the UNESCO, Eolss Publishers, Oxford U.K. [Nielsen follows the dominant method of moral reason which he describes in which substantive moral issues are ruled out a-priori.]

Nietzsche, Friedrich (1964), *The Complete Works of Nietzsche* (ed. O. Levy). New York: Russell and Russell. [Includes Nietzsche's master idea that "values are constructs of domination", with "slave morality" too as a will to power moved by ressentiment against the rule of "nature's aristocracy" to whose "free expression" inferiors "must be reduced to slaves, to tools".]

Noonan, J., (2006), *Democratic Society and Human Needs*, 264pp. Montreal and Kingston: McGill-Queens University Press. [This study uniquely provides a life-grounded theoretical comprehension of liberal philosophy and doctrine across centuries and its conflict with human needs at the core of its program, explaining the underlying principles of struggle against this ruling ideology and its capitalist base as a movement of need-satisfying social democratization.]

Noonan, J., "The Embodied Good Life: From Aristotle to Life-Ground Ethics", *Philosophy and World Problems Theme* edited by J. McMurtry in Encyclopedia of Life Support Systems (EOLSS) under the Auspices of the UNESCO, Eolss Publishers, Oxford U.K. [Beginning from Plato's "idealist hope for transcendence" and working through the core principles of Aristotle, Marx, Nietzsche, Marcuse, Adorno, Sen, Nussbaum and McMurtry, develops the historical philosophical basis of a life-grounded onto-axiology.]

Nozick, R. (1974), *Anarchy, State and Utopia*, 367pp. New York: Basic Books. [This influential work rejects liberal arguments for equality of rights in favour of the rights of private property to trump any redistribution by taxation or otherwise as unjust.]

Nussbaum, M. and Sen, A. eds. (1993) *The Quality of Life*, 453 pp. Clarendon: Oxford University Press. [Major collection of by philosophical leaders in the field including the editors, G.A. Cohen, Onera O'Oneill, Hilary Putnam, Charles Taylor, and Michael Walzer, on equality, capability and well-being, gender justice, and standards of living, none of which grounds in life-value criteria or life support systems.]

Olson, M.(1965) *The Logic of Collective Action: Public Goods and the Theory of Groups*, 176pp. Cambridge Mass: Harvard University Press. [Along with Arrow's Paradox, the classical and more comprehensive statement of the problem of collective action based on individual choice functions alone.]

Ostrom, Elinor (1990) *Governing the Commons: The Evolution of Institutions for Collective Action*, 280 pp. Cambridge Mass: Harvard University Press. [Recipient of the 2009 Nobel Prize in Economics, Ostrom revealingly confines her study to small-scale commons

organized and governed by individuals without government funding, legal enforcement or life-value criterion.]

Pareto, Vilfredo, (1971 [1906]), *Manual of Political Economy*, New York: A.M. Kelley [This classic of rational choice theory and economic reason is the source of the famous principle of "Pareto optimality/efficiency", based on dyadic asset exchange with no relation to life needs.]

Patel, Raj (2009), *The Value of Nothing: Where Everything Costs Much More than We Think*, 250pp. Toronto: Harper-Collins [As the title indicates, explains how contemporary economic science and policy blinkers out the most important costs.]

Perry, R.B. (1969), *Realms of Value: A Critique of Human Civilization*, 487 pp. Cambridge: Harvard University Press. [Perry provides the most comprehensive argument for the general value theory of the good = what is desired: att a second-order level, an axiology to justify the value-system of a market order.]

Plato (1961), *The Collected Dialogues of Plato* (ed. E. Hamilton and H. Cairns), Pantheon Books: New York. [The complete dialogues of philosophy's most famous author and his pervasive interlocutor model, Socrates, whose "Theory of Forms" posits pure, transcendental and eternal ideas of which all material entities are but inferior, mutable copies.]

Polanyi, Karl (1944/2000), *The Great Transformation*, 315 pp. Boston: Beacon Press. [This canonical study lays bare a great fabric of violent life transition from pre-market village society through the utopian free market cataclysm to the 1944 understanding of community instituted by public institution and the welfare state.]

Press, Eyal and Washburn, Jennifer (2000), "The Kept University", *Atlantic Monthly* March 2000, 2-13.[A useful article which exposes the private funding distortions of the contemporary academy.]

Radhakrishnan, R. and Moore, C. (1957), Sourcebook in Indian Philosophy, 683pp. Princeton: Princeton University Press. [This is a comprehensive collection of Indian philosophy and non-Western value understanding, including the full texts of the eleven principal Upanisads and the Bhagavad-gita, and substantial selections from early and late Buddhism.

Rawls, J. (1971), A Theory of Justice. 542pp. Cambridge Mass: Harvard University Press. [This is the recognized definitive work of the twentieth century in political philosophy, using a contractarian model to discover principles of justice with its paradigmatic starting point the principle of self-maximizing rationality "including wanting a larger share for oneself". A "veil of ignorance" over one's faculties and conditions of life decouples from conditions of life a-priori.]

Reid, G.B.R. (2007), *Biological Emergences: Evolution by Natural Experiment*, 517pp. Cambridge Mass: MIT Press.[This work by a biologist explains how the "autocatalyzing" organism is a coordinating system which reduces infinite interactive possibilities to predictable pathways of homeostasis but is sufficiently flexible to allow for emergence of new types of life, "evolution by natural experiment". Confirms life-coherence principle at organic biological level.]

Rescher, N. (1969), *Introduction to Value Theory*, 205 pp. Engelwood Cliffs, NJ: Prentice-Hall.[This monograph by the most published analytic philosopher of the last century

exemplifies the era's formalist method and symbolic notations purged of substantive issues.]

Robert, J.S. (2008), *Embryology, Epigenesis, Evolution,* 290pp. New York: Cambridge University Press [The one-way, reductionist "genomania" which has swept over contemporary evolutionary biology and popular thought is critiqued as inferior science.]

Rorty, R. (1989), *Contingency, Irony and Solidarity*, 289 pp. New York: Cambridge University Press. [With his earlier The Mirror of Nature (Princeton: 1979), this work is the most prominent text of the anti-foundationalist movement in philosophy, denying any common standard of truth or value].

Rousseau, Jean-Jacques (1984), Discourse on the Origin of Inequality (trans. M. Cranston), 182 pp. Harmondsworth, Middlesex: Penguin Books [Rousseau famously conceives human beings in their natural state of human language, reason and species sympathy before private property, division of labor and vain desires corrupt and alienate them.]

Rousseau, Jean-Jacques (1968), *The Social Contract* (trans. G.D.H. Cole), 100 pp. Harmondsworth, Middlesex: Penguin Books [Rousseau's best known but widely misunderstood work featuring the grounding idea of 'giving the law to oneself' to resolve the conflict between individual freedom and state law, with citizens rationally willing "the common interest" to together achieve the "general will" of democratic government.]

Russell, Bertrand (1983-), *Bertrand Russell: Collected Papers*, 29 vols. London: Allen and Unwin. [Includes Russell's prolific corpus of philosophical and public works, including his of 'type theory' of logically higher and lower order classes of properties (e.g., the color property of colored objects is a higher order property than the combination of all of the members of the class of colored objects). His works on denotation and description, the logical foundations of mathematics, sense data and logical atomism, neutral monism, and probability comprise a string of innovative technical solutions and theories to resolve paradoxes of logic and science. He regretted twentieth-century philosophy's wide abandonment of "understanding the world itself",, that grave and important task which philosophy throughout has hitherto pursued"].

Ryle, G. (1976) *The concept of mind*, 334pp. London: Hutchinson. [This famous work in analytic philosophy explains externalist science standpoint as valid, reducing the human mind to a "ghost in the machine" when [a machine of] behavioural dispositions is all that is at work.]

Samuelson, Paul and Nordhaus W.D. (2005), ECONOMICS, 784 pp. New York: McGraw-Hill. [The standard global reference text and classic of contemporary economic science in which cooperative enterprises are excluded and the self-maximizing meta program is assumed.]

Sartre, Jean-Paul (1972), *Critique of Dialectical Reason*. 2 Vols. London: Verso Books. [Sartre's major later work seeks to synthesize undetermined existential individual freedom of choice (of which he is the major philosophical founder) with Marxian dialectical reason and class analysis in which life-coherence principle remains missing.]

Scheler, Max (1973), *Selected Philosophical Essays*, 320 pp. Evanston U.S.: Northwestern University Press. [A representative collection of Scheler's work which distinctively holds that values are objective and unchanging objects of emotions and feelings rather than reason.]

Schopenhauer, Arthur (1818/1957), *The World as Will and Representation*, 3 vols. London: Routledge . [This is Schopenhauer's definitive work, the classic "pessimistic philosophy" in virtue of its depiction of cosmic life as a round of blind desire, competitive struggle and suffering which leads reason to "denial of the will to live" itself for the quietude of absolute detachment.]

Schweitzer, Albert (1936), "The Ethics of Reverence for Life", *Christendom*, 1, 225-39. [This is the most crystalline argument for Schweitzer's flagship "new ethics" rejecting prior ethics like Kant's. It calls for "an absolute ethics of will-to-live [which] must reverence every form of life, seeking so far as possible to refrain from destroying any life, regardless of its particular type".]

Searle, J..R. (1997), *The Rediscovery of the Mind*, 512pp Boston: MIT Press. [In this work, analytic philosopher John Searle argues against the dominant computer model of the mind and of cognitive science in favour of the irreducibly qualitative and subjective experience of consciousness not explicable by physicalist accounts or computational functionalism.]

Sen, Amartya (1977). "Rational Fools: A Critique of the Behavioral Foundations of Economic Theory", *Philosophy and Public Affairs*, 6, 317-44. [This landmark article challenges the standard selfish reading of the self-maximizing principle of rationality, with the ambiguous legacy of preserving the principle while completely eliding its dominant expression in money-capital sequencing.]

Sen, A (1998), "The Possibility of Social Choice", 37pp. Trinity College, Cambridge: Nobel Lecture [This lecture provides an incomparably rich documentation of the literature on social choice, demonstrating there is no conception of social choice in received social science or philosophy other than as an aggregation of individual choosers, an atomic metaphysic of choice to which social regulators cannot compute in principle.]

Singer, Peter, Animal Liberation: Man's Inhumanity to Animals (1983). 302 pp. Wellingborough, Northamptonshire: Thorsons Press. [The definitive work by the best known advocate of animal rights deploys the utilitarian pain-reduction principle to argue against the standardized cruel abuse of domestic animals in factory food production, but fails to see the implication that pain-free domesticated animals have better lives within this condition, which further implies that they ought to substitute for animals experiencing far more pain and suffering in the wilderness.]

Smith, Adam (1776/1966), *An Inquiry into Nature and Causes of the Wealth of Nations*. 2 vols. New York: A.M. Kelley. [This is the founding work of "the moral science" of economics by a moral philosopher in which the "invisible hand" of the competitive "free market" is understood to produce the "common good" by its self-regulating mechanism of supply and demand. Its ignored proto-evolutionary model of economic science is worth citing: "Every species of animals naturally multiplies in proportion to the means of their subsistence, and no species can ever multiply beyond it. But in civilized society it is only among the inferior ranks of people that the scantiness of subsistence can set limits to the further multiplication of the human species; and it can so in no other way than by destroying a great part of the children".]

Spinoza, Baruch (1985), The Collected Works of Spinoza (ed. E. Curley), 7 vols. Princeton:

Princeton University Press. [Spinoza's greatest work on *Ethics* is a deductive system modelled on Euclid's definitions, axioms and theorems in which God or infinite substance is conceived as the rational system of the universe in its thinking and extended modes and infinite attributes which can be better (more adequately) or worse (less adequately) comprehended, from vague and emotional experience through general reasoning to scientific intuition (scientia intuitiva) of the logically determined whole from the comprehensively rational experience of it – a classical rationalist ideal of the true "self interest" of the individual.]

Taylor, Charles (1989), *Sources of the self: the making of the modern identity*, 601pp. Cambridge, Mass.: Harvard University Press. [Taylor's magnum opus, it is classified as falling within the "communitarian" school of justice for its grounding in historically developed social relations and moral character in opposition to abstract liberal atoms maximizing self benefits.]

Vico, G. (1724/1984), *The New Science*, 445 pp. Ithaca, New York: Cornell University Press. [Vico argues that humanity can only know for certain what it has created, an enlightenment view reversed by the contemporary idea that society is governed by iron laws it has not created.]

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Weisbrot, M., Baker, D., and Rosnick, D. (2006). "The Scorecard on Development: 25 Years of Diminishing Progress", *International Journal of Health Services* 36,2: 211-234.[Scientific identification of the pattern of degrading human life systems during market-system globalization.]

World Commission of the Environment and Development (1986). *Our Common Future*, 500 pp. New York: Oxford University Press.[This major study makes "sustainable development" a household term, but endorses "five to ten times" more system growth with no life standards of growth defined.]

Whitehead, A.N. (1938), *Modes of Thought*, 172 pp. New York: Macmillan [Whitehead's most well known lectures on his "process philosophy" which conceives Nature as "alive", "feeling", "purposing" and ever "creative" in the energy flows described by physics (the totality of which processes he conceives as God), as opposed to "dead" and "inert" in the Newtonian tradition.]

Wittgenstein, Ludwig (1968), *Philosophical Investigations*, 260 pp. New York: Macmillan. [Perhaps the most celebrated work of twentieth-century philosophy, it leads what philosophers have come to call "the linguistic turn" which decisively disconnects philosophy from the material problems of the world.]

Wollheim, R. (1984), *Thread of Life*, 288 pp. Cambridge Mass: Harvard University Press. [A Freudian critique of the "thread of life" of an individual in which the roots of moral obligation

and values are respectively reduced to persecution and depressive anxieties.]

World Commission of the Environment and Development (1987), Our Common Future, 400 pp. New York: Oxford University Press. [This now canonical text led by an economist, also known as "The Brundtland Report", put the concept of "sustainability" on the world stage, but fails to provide a unambiguous criterion of its baseline concepts of needs and sustainable growth.]

M.E. Zimmerman, J.B. Callicott, J.Clark, G. Sessions, K. J. Warren eds. (1998). Environmental Philosophy: From Animal Rights to Radical Ecology. 490 pp. Prentice Hall: London. (The most critically wide-ranging text in the field of philosophy of the environment with articles by such well-known figures as Thomas Berry, Aldo Leopold (the pioneer of the Land Ethic), Arne Ness (definitive account of Deep Ecology by the founder), Carolyn Merchant (defining excerpts form The Death of Nature), James O'Connor (leader of socialism and ecology movement), Tom Regan, Peter Singer, Paul Taylor (animal rights), Gary Snyder (bio-regionalism), and the editors (covering such fields as ecofeminism and social ecology).

John McMurtry holds his B.A. and M.A. from the University of Toronto, Canada and his Ph.D from the University of London, England, and has been Professor of Philosophy at the University of Guelph for over 20 years and University Professor Emeritus since 2005. He is an elected Fellow of the Royal Society of Canada, and his many articles, chapters, books and interviews have been internationally published and translated.

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