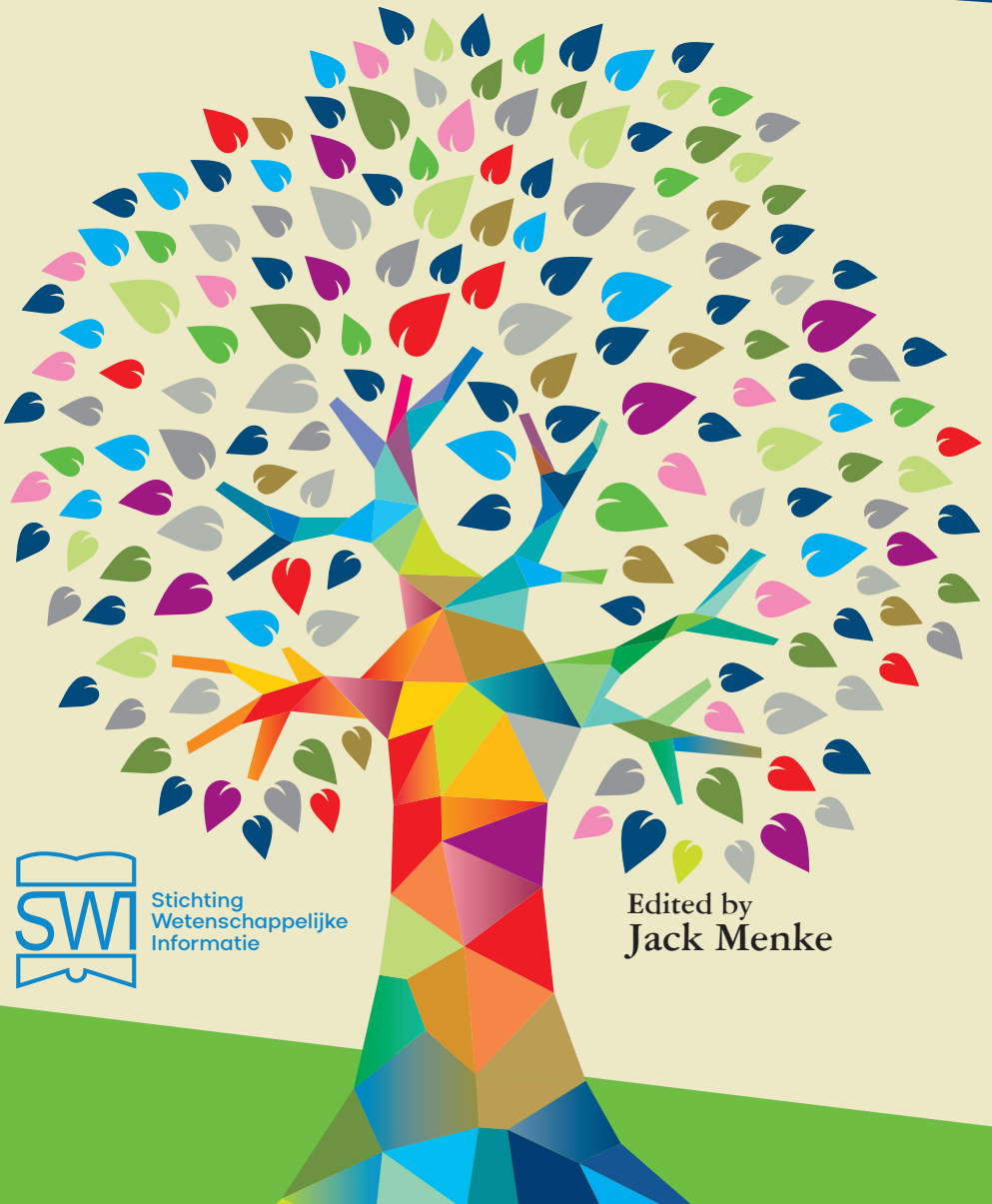


SURINAME: LAND OF DIVERSITY

Balancing Nature and Culture for Development



Stichting
Wetenschappelijke
Informatie

Edited by
Jack Menke

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CONTENTS

PREFACE	5
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Balancing Nature and Culture for Development: An introduction	9
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PART I

DIVERSITY AND METHODOLOGY	19
----------------------------------------	----

1. Extradisciplinary Transition from Science to Ethics	20
<i>Glenn Sankatsing</i>	

2. Reflections on Diversity and Methodological Pluralism: The Case of Leprosy in Suriname	45
<i>Jack Menke</i>	

PART II

DIVERSITY AND NATURE	67
-----------------------------------	----

3. Development and Climate Change in Suriname	68
<i>Jamille Haarloo</i>	

4. Wildlife and Development	99
<i>Monique Pool</i>	

5. Biodiversity: The Victim of Ecological Degradation for Economic Development	114
<i>Paul Ouboter</i>	

PART III

DIVERSITY AND HEALTH 140

6. Integration or Fragmentation. The Challenges of
Diversity in Ecology, Culture and Science 141
Wim Bakker
7. One Health Policy 164
Astrid van Sauers
8. Psychiatric Disorders and Cultural Diversity in Suriname 182
Kamla Nannan Panday

PART IV

CULTURAL AND SOCIAL DIVERSITY 203

9. Lespeki Mi:
Respect for Lesbian, Gay, Bisexual and Transgender People
in Suriname 204
Carla Bakboord & Jonneke Koomen
10. Interreligious Resilience as a Response to Confusion
and Division in Suriname and Guyana 227
Kirtie Algoe

ABOUT THE AUTHORS 249

1. Extradisciplinary Transition from Science to Ethics

Glenn Sankatsing

Abstract

Humanity is facing existential problems that science has helped to create but cannot solve, because there is no technological solution to anthropocentrism, the fundamental cause of our misfortunes. Added to this is a stubborn myth of truth that overstretches science beyond its anthropomorphic limitations proper to a human science. The aim of science is not to discover the truth, but to reduce the degree of speculation in what amounts to an endless search for perishable 'truths'. The fragmentation of science into autonomous disciplines further complicated its role by undermining its ability to explore reality holistically. A critical analysis of the consecutive era in humanity's historical quest for knowledge and truth points to the opposing paths of science and ethics. Science deals with how reality is and ethics deals with how reality should be. When there is a discrepancy with reality, theory must change in science, but in ethics reality must change.

This requires a critical look at the diversity and pluralism of science, its anatomy, its truth claims, its legitimization of knowledge, its separatist fragmentation into disciplines, its historical role and, above all, its lack of response to the existential crises of our time. What follows is a requiem for today's fragmented science and its extradisciplinary and holistic rebirth, subordinated to ethics, the best remedy against moral implosion, at a time when humanity's survival options demand a transition from the scientific era to the ethical era.

Keywords: science, ethics, evolution, future, survival, anthropocentrism

1. The Quest for Knowledge and Truth

Life is a continuous struggle for survival in a given or chosen environment through adaptation and appropriate responses to challenges and dangers. Animals store accumulated information about survival in their instinct rooted in genes, which they expand through real-life learning experiences, while humans have the ability to further enhance their responsiveness through reason, sometimes even when instinct is more reliable than reason and science. When the inquisitive mind of humans leads them to step on the waterline that mysteriously recedes as the tsunami approaches, many animals fly to higher ground (Sankatsing, 2016, p. 357).

Since life depends on adequate information to respond appropriately, the quest for knowledge and truth has mesmerized humanity throughout history. It went through several stages, from the era of naturalism, through the era of mythology and the era of theology, to the present era of science.

In this process, science has been the greatest achievement of the intellect, humanity's most powerful tool for attaining knowledge and truth, the crown jewel of social evolution, the main driving force of development and the yardstick of civilization. The problem with this absolutist narrative that prevails in modern civilization is that far from being a universal vehicle of observation and explanation, we have a humanoid science limited by human perspectives, capabilities, potentials and aspirations. While science is useful for making sense of the world around us in order to increase our chances of survival and improve our living conditions, it is neither the only window to reality nor the supreme authority for justifying knowledge.

Science enhances human perception of the world around us with new knowledge of practical utility through a socio-intellectual exercise, but the information obtained is always of a provisional

nature. The aim of science is not to discover the truth, but to reduce the degree of speculation. Science is an endless search for perishable ‘truths.’ Useful inventions and innovations of practical value in response to immediate challenges have given science great prestige as a powerful tool for overcoming difficulties. However, history refutes the claim that science has been at the forefront of humanity’s struggle for survival and prosperity. In order to harness nature for the benefit of humanity, science has supported a distinctly anthropocentric worldview that undermines our ability to survive and has contributed greatly to today’s existential threats.

Science has even distanced itself from evolution and its cornerstone of harmony with nature, which is “life seeking more life”. This widened the gap between intelligence and social development, rendering humanity incapable of controlling the products of its own intelligence. Today, humanity has strayed from its evolutionary path and faces existential challenges to which science cannot find answers because there is no technological solution to anthropocentrism.

This raises a number of difficult questions about how science responds to the current global crises. Are science’s claims to knowledge and truth legitimate? Is science equipped to legitimize knowledge? How have the origins and evolution of science led to our current precarious situation? Can science offer an alternative to extinction? Has the path of anthropocentric science reached a dead end? Can a liberating holistic science reconnect with evolution to help rescue our future? Does the Era of Ethics mean the end of science? In the face of threats to our continued stay on Earth, the most important question is whether humanity is in a tectonic transition from the Era of Science to the Era of Ethics. Let us examine these questions one by one.

2. The Anatomy of Science

The claim that science discovers knowledge and truth has been a questionable axiomatic assumption throughout history. The anthropoid anatomy of human science excludes any claim to final, objective or universally valid knowledge or truth.

Endowed with five senses but without innumerable other existing or possible forms of observation, human science inherently suffers from limitations that prevent it from claiming universality, objective knowledge and truth. Science has been: (1) anthropomorphic, (2) geocentric, (3) anthropocentric, (4) androcentric, (5) Eurocentric, (6) system- and market-driven, (7) empiricist, and (8) epistemologically biased. Let us delve into this anthology of limitations.

Anthropomorphism

The anthropomorphic nature of science derives directly from the physical, intellectual and technological capabilities of humans. Our five senses, the size of our brain, the power of our mind, the properties of our language, and our location in a tiny part of the Universe provide us with the ability to observe and understand the world around us, but these unique conditions also severely limit us. Instead of giving us access to objective reality and the mysteries of the cosmos, as has been tacitly assumed, our science is severely limited by human perspectives. This reduces any claim of universality of science to a myopic and local reading of the Universe. Creativity and imagination may expand human perspectives beyond the physical horizon, but they will still be bound by our limitations. Intersubjectivity, replication and peer review may protect research findings and discoveries from spurious results due to individual whims, demonstrable methodological biases, human error and fraud, but rather than proofs of truth, they are proofs of valid anthropomorphism.

Geocentrism

The geocentric worldview, which regards the Earth as the center of the Universe, has long dominated science with the notion of a watchtower overlooking the heavens in perpetual orbit. It has long plagued philosophy, astrology, religion, science and politics. When heliocentrism placed the Sun at the center, it did not abandon the absurd claim of the geocentric worldview that humans are the intellectual center of the cosmos.

Anthropocentrism

The human species was at the center with the prerogative to survive and thrive at the expense of all other species, the environment and nature itself. The anthropocentric worldview, pursued with fervor by tyrants and elites, indelibly marked the right to subjugate, dominate and manipulate the rest of the planet for the benefit of humanity as a God-given or evolutionary right. In the words of the Greek philosopher Protagoras, later taken up by the German philosopher Friedrich Nietzsche, anthropocentrism is “to treat man as the measure of all things” (Nietzsche, 1873) or, as Albert Schweitzer put it, “we like to imagine that man is nature’s goal” (Schweitzer, 1936).

Androcentrism

The overwhelmingly male influence and patriarchal control of science has further narrowed the historical perspective of science. This unilaterally male perspective has given a different twist to the scientific enterprise than what a balance between men and women might have achieved. Most research has been conducted by men, about men, and in response to male concerns and perceptions. There are historical examples of women publishing under male names to reach a wider audience. It is still reported that women are more likely to be published if they submit articles under male names (Denham, 2015).

Eurocentrism

Science, which has been practiced since ancient times on all latitudes, was reduced to the self-congratulatory claim that all universals come from the West, a belief based on Hegel's philosophical fable that history travels from East to West and that Europe is the end of history and thus the sacred place where knowledge is legitimized. Europe claims to be the future face of all societies with its mantra of Eurocentrism "What was good for the West is best for the rest!" This goes beyond the banal claims of superiority that usually characterize all forms of ethnocentrism, because European models and achievements are not only better than everyone else's, they are also better for everyone and can be shared with all others and, for their own benefit, even imposed on them through violence. This has made Eurocentrism the most powerful tool for proclaiming the supremacy of science, philosophy and ideology, as part of the globalization of the local experience of the West dubbed 'civilizing mission'. The most unfortunate result of this supremacy is that science has been the institution par excellence for asserting the hegemony of Western civilization.

System Maintenance

Throughout history, science has been systematically mobilized in the service of the interests of the ruling classes represented by emperors, kings, popes, ayatollahs, dictators, presidents, political parties, corporate capital, monopolies and superpowers. As a strategic tool in absolutist, feudal, electoral, neoliberal, theocratic and authoritarian regimes, science has typically been a political instrument of the elites, who pay the piper for the sole purpose of calling the tunes. Many prestigious universities did not emerge in an environment of freedom and justice, but were built on the profits of colonialism, slavery, and tainted corporate wealth. Many

billions spent on research and technological innovation reflect the importance of science to the war industry and profit maximization, which has influenced the research programs of prestigious scientific institutions and the academic careers of many scientists.

While there have always been courageous scientists who have pursued autonomous paths to find alternative approaches beyond the confines of system maintenance, in the past the sale of intellect has prevailed over selfless discovery motivated by curiosity and concern for the health of the planet and the well-being of the majority. The co-optation of innovative tools to enhance control by dominant systems has transformed many 'scientific revolutions' into scientific counter-revolutions, which divert humanity from true development, harm the health of the environment and, above all, primarily enrich billionaires.

Empiricism

Empiricism, which is the core of evidence-based science, is based on confirmation by facts, which act as ultimate and indisputable judges. Its axiom is that facts never lie, an assertion that is refuted by an interesting consideration of the German American sociologist Reinhard Bendix. He argues that if the future is uncertain, the present was also uncertain when viewed from the past (Bendix, 1964). This implies that the present is not the future of the past, but one among the many possible futures that did not materialize. The genealogy of the present is not the teleology of the past.

This has enormous implications for the meaning of facts, which are specific outcomes of underlying processes subject to a variety of unpredictable circumstances, external influences and emergent conditions, as well as shaped by willpower in the form of strategies, plans and deliberate actions.

Science must go beyond a mere chronicle of events to explore the dynamics that drive history, which are not the facts (what is made)

but the factors (what makes). Of course, once an event occurs, however accidental, it has a historical impact. But what drives social evolution and social processes are not the facts, but the underlying factors that produce the facts. This invalidates the central dogma of empiricism that facts are the ultimate source of confirmation and validity. To understand the nature of social processes, science must go beyond the historiographical chronicle of facts to identify the factors that act as true underlying causes. A neurotic preoccupation with facts produces conjunctural scientists who follow what is going on, but do not know what is happening.

Seventy years ago, Caribbean scholar Elsa Goveia brilliantly summarized this problem.

In history, time supplies the continuum but not the principle of change. To discover that principle, it is still necessary... to seek, beyond the narrative of events, a wider understanding of the thoughts, habits, and institutions of a whole society. In the society itself, in its purpose and in its adaptive processes, will be found the true genesis of history. (Goveia, 1956, pp. 176-177).

Facts are important handles, sometimes the only available starting point for unraveling social evolution. But it is the genesis of facts, and not the sacrosanct cult of facts, that has true power of scientific confirmation and understanding. This epistemological critique of empiricism calls for complementary insights from other sources that science has vehemently rejected, such as community memory, oral tradition, intuition, life experiences and rituals that are not clouded by facts and data. In the case of the environmental crisis, indigenous peoples have demonstrated better ways to protect and conserve nature than treatises, statistics and complex charts from Ivy League universities and global multilateral organizations. Since facts do not reveal the dynamics of social processes, focusing on factors is the best way to overcome the shortcomings of empiricism.

Epistemological bias

Throughout human history, science has created much useful and practical knowledge that has served humanity, but no single truth has ever been found. More than a century ago, Friedrich Nietzsche debunked the truth claims of science.

Over immense periods of time the intellect produced nothing but errors. A few of these proved to be useful and helped to preserve the species: those who hit upon or inherited these had better luck in their struggle for themselves and their progeny.
(Nietzsche, 1882).

Given the prominent role of refutation in science, as Karl Popper's (1935) principle of falsifiability holds, scientific certainty is unscientific. Instead of seeking truth, which belongs to the realm of theology, science reflects the incessant search for new practical knowledge in a continuous debate, dialogue and argumentation among human beings about the most plausible interpretations and explanations of reality and the Universe at any given moment. This essence of science was captured by the Caribbean intellectual Lloyd Best, who called scientists the high priests of speculation (Best, 1992, pp. 2-3). Indeed, any claim to truth or objective knowledge immediately transforms the scientist into a true priest seeking glory at the altar of scholarship.

By claiming to be the authoritative spokesperson for truth and offering the best strategies for the future, science acquires an unwarranted prestige that goes beyond its real capabilities. There is no doubt that science has been able to reduce the degree of speculation in practical action and has contributed to improving the life chances of humanity, but that does not justify science's monopoly on the voice of truth, much less its claims of superiority, which have been used for centuries to legitimize and empower local and global rulers. This false authority of science has been at the root of epistemic domination as part of a broader colonial and imperial project of Eurocentrism, colonialism, westernization, civilizing missions,

imperialism and globalization, aimed at system maintenance to guarantee the survival of empires and despots (Dussel, 1980, 1988, 1993; Dussel 2006).

3. Scientific Diversity: Disciplines without Discipline

Fragmentation of Science Derailed towards Separatism

In addition to science's unfounded claims about truth and knowledge, a major factor complicating the integrity of science is the diversity of disciplines to the detriment of its unified character. The early fragmentation of science into a series of loosely connected autonomous disciplines, each purporting to be a science in its own right, contrasts sharply with the harmonious and unified character of nature and the universe. These disciplines do not reflect the structure of reality but are the product of rational organizing principles of the human mind designed to make reality legible.

When fragmentation breaks the whole into pieces, like the fragments of a broken vase, this causes difficulties in the study of the whole. In itself, this poses neither an insurmountable problem nor an irreversible difficulty for scientific integrity. If the will is there, the parts can be realigned and integrated in a later laborious attempt to restore a unified science.

However, the situation changed dramatically in the history of science when fragmentation derailed into separatism and science disintegrated into disjointed academic chiefdoms, each claiming a part of society as its exclusive domain. With separatism, the parts became incompatible and could no longer be integrated. As a result, a unified science disintegrated into sectarian fields of study with distinct identities, anatomies, theoretical approaches,

methodological pathways and research objectives, to the point that their different anatomies made their defragmentation or reintegration into a meaningful whole impossible.

Throughout the history of science, the unfounded pretensions of the disciplines to be independent sciences have been detrimental to the study of the surrounding world, society, social evolution and social processes. This has affected the entire edifice of science, but nowhere has it been more evident than in the social sciences, where it has taken extreme forms. The emergence, social evolution and history of the current social sciences can thus serve as an emblematic case for understanding the complications of separatism in science and the major epistemological problems it has provoked.

The Validity of Today's Social Sciences

Social science became a victim of its own disciplines when it split into different social sciences speaking different languages in their parochial conversations with social reality. Separatism has made fragmentation an incurable defect that makes it impossible to reunify autonomous, stand-alone disciplines that have become incompatible as they went their own way without adhering to the canon of a unified social science. The question that arises is whether the existing social science disciplines can be the starting point for providing a solution to overcome a linguistic confusion similar to that which brought down the Tower of Babel.

Early social science intuitively assumed that social reality was a complex and interrelated whole that could only be successfully addressed within an overall holistic framework. Artificial compartmentalization into disciplines radically altered this as the disciplines claimed a segment of society as their exclusive domain, justifying a separate identity for each as a distinct science.

There is no doubt that the dynamic processes of social evolution that shape human communities and societies are too complex and

multifaceted to be studied by any one person. They require a division of labor for their systematic study in the form of specializations that can provide detailed data and insights into specific social domains. But it is a scientific crime to differentiate for study purposes and then forget to put the pieces together before making definitive statements. A child building with Lego bricks makes sure that the pieces of the airplane end up fitting together.

To find an answer to the crisis of the social science disciplines, we need to diagnose the nature of the impact of the internal divorce of social science on the holistic understanding of social reality. It is important to know when and how separatism in social science emerged. An epistemological look at three basic social science disciplines, sociology, anthropology and economics, can give us an idea of the enormous complications of fragmentation and separatism in social science.

Social science was not discovered but was created in response to burning social problems that needed a solution. Renowned social scientists from all continents agree that “science is never born in a void” (Nisbet, 1972, p. 7), that it “is decisively determined by the social reality where it comes from” (Klages, 1972, p. 16) and that it is always “occasioned by a problem, a requirement, an obstacle of a theoretical or practical order” (Foucault, 1966, p. 344). In the words of Asian social scientist Susantha Goonatilake, “The history and theories of development of Western science are themselves very much a product of the Western intellectual experience and are therefore subject to the ethnocentric limitations that this experience brings” (Goonatilake, 1984, p. 22).

Western social sciences, in their disciplines, as well as in their concepts, categorizations, theories, paradigms and methodology, are the product of a genesis intimately related with the European socio-historic context within which they were born, and in which they were subsequently nourished by the dynamic social processes undergone by that continent. (Sankatsing, 1995).

The profound changes that occurred in Europe with the Renaissance, the Enlightenment, the French Revolution and the Industrial Revolution, accompanied by the collapse of the feudal system, the moral quagmire of colonialism and the rise of capitalism and its globalization, posed unprecedented challenges that required urgent responses.

Sociology was born not as a scientific discipline but as a device for the salvation of France after the French Revolution provoked a growing instability that threatened social peace and continuity. In Eric Wolf's words, sociology was "an antidote to revolution and disorder" (Wolf, 1982, p. 21). To restore order in the midst of chaos, France invented sociology and the guillotine. There are no sociological problems but social problems. A sociological problem is a problem in the mind of a sociologist.

The rise of capitalism posed difficult challenges to its continuity, due to its internal contradiction that perpetual growth cannot be sustained, as demand tends to saturate when needs are satisfied or maturity is reached. The market economy has appropriated economics to the point that modern economics has become the doctrine of capitalism to optimize a system of free competition and profit maximization for the elites based on induced, even invented, demand that allows for unceasing growth. The satisfaction of needs for the survival of the majority has given way to the maximization of profits for the enrichment of the elites, which explains why the growing wealth of billionaires coexists with billions of people living in undignified conditions.

Modern economics has become an instruction manual for capital accumulation. The Royal Swedish Academy of Sciences awarded the 2013 Nobel Prize in Economics to three U.S. professors for their prediction of how markets for stocks, bonds and other assets will behave in the medium term and how investors can optimize their profits even through "compensation for holding risky assets during

unusual risky times” (Sveriges Riksbank, 2013). A Nobel prize was awarded for a recipe that makes billionaires richer.

Cultural anthropology was the answer to the colonial project’s demand to be versed in the culture of subjugated peoples because a minority can only dominate a majority if it dominates their minds. Eric Wolf concluded that anthropology was the child of imperialism, (Wolf, 1982, p. 18), while the Saudi anthropologist Talal Asad explained how the discipline suffered theoretically from its association with colonialism (Asad, 1973, p. 31). In this vein, Claude Lévi-Strauss noted that anthropology was the daughter of violence, a product of the “de facto state of affairs in which one half of humanity arrogated to itself the right to treat the other half as an object” (Levi-Straus, 1973, p. 36).

Although the rise of social science disciplines makes sense in the dynamic processes of Europe, the current system of social science disciplines represents a purely contextual response, which excludes claims to universal validity. Societies in which extended families are simultaneously the locus of social relations and economic production will not have the imagination to invent sociology and economics as separate disciplines. Similarly, one wonders how anthropology could emerge in indigenous communities, since they are not exotic to themselves. Nevertheless, the cradle of social science disciplines that were exported to other latitudes reserved for itself the right of universal legitimization of knowledge. The result is telepathic research conducted from afar by self-proclaimed experts who tend to subject the social experience and future trajectory of others to their parochial models, as have been the revealing cases of orientalism and developmentalism.

The conclusion is that the current social science disciplines have no right to exist even in their place of origin, while the traditional system of disciplines lack universal validity. This makes their imposition in other latitudes a flagrant act of colonialism. The fact that faculties

and institutes of sociology, economics and anthropology exist in these countries is not the result of an indigenous or contextual process but a sign of the Eurocentric shaping of the world through the globalization of the local experience of the West. The imposition of parochial Western social sciences on the rest of the world has been part of the transformation of other destinies into trailer societies without steering wheel or engine, rocking on the back of the truck of civilization, according to the Hegelian maxim that Europe is the future face of all others.

Instrument of Hegemony

The social sciences, generated by the dynamic social, cultural and political processes of the West, were transferred to the victims of these processes as part of a hegemonic colonial mission to civilize, westernize and modernize the rest of the world.

Many universities around the world were born as avatars of European universities, as has been the case of the University of the West Indies, which began as an overseas dependency of the University of London (Sankatsing, 1989, p. 45). According to Don Robotham (1984, p. 112), the growth of sociology in Jamaica was related to the colonial imperial state's effort to defeat, deflect, corrupt, subordinate and administer the major social struggles.

A prerequisite for the global imposition of the Western system of social science disciplines was to turn the rest of the world into a blank slate, as part of the process of cloning the West in other latitudes, dubbed 'the civilizing mission'. Western social sciences played a crucial role in this implantation process, which required wiping the slate clean of the past by erasing the language, culture, religion, spiritual life, history, productive traditions and social evolution of others.

Social science disciplines contributed to colonialism, slavery and westernization and undermined liberation, emancipation and

development. Political economy derailed into economics when the rise of capitalism required an adequate system maintenance tool for its optimization. In distant latitudes, tradition not science, was adopted.

A telling example of this instrumentalization is the emergence of Indology as an academic specialization in the Netherlands to prepare colonial officials culturally for their colonial mission in Indonesia. According to a Dutch Encyclopedia of Sociology (De Valk, 1977), when it was no longer needed with Indonesia's independence, it adopted the name Non-Western Sociology and offered master's and doctoral degrees for several decades. This is a telling illustration that the system of social science disciplines does not fit the agenda of liberation, independence, solidarity and development.

Extradisciplinarity

The specific origin, nature, genesis and role of today's social sciences, as an emblematic case of separatism, point to their lack of epistemological, scientific and ethical validity. This poses an insurmountable problem for the reunification of science for the sake of holistic study. Having arbitrarily annexed parts of the social domain as their exclusive property, they separated science into autonomous disciplines with different anatomies due to divergent theoretical and methodological adaptation, transforming them into deformed pieces of a puzzle that disqualify them as starting points for a solution.

The implications are far-reaching. Multi-, inter- and transdisciplinary approaches, however well-intentioned, cannot offer any solution, because they take as the starting point the existing disciplines that should be discarded.

This poses a difficult dilemma that the rejection of the social science disciplines out of hand comes at the price of discarding the entire body of social research and thought produced to date, including the

valuable insights of earlier thinkers and researchers accumulated over two centuries. To overcome this dilemma of rejecting the imposed parochial Eurocentric disciplines without discarding valuable earlier thoughts and ideas about society, the extradisciplinary approach was proposed (Sankatsing, 1989). It breaks with the reverse logic that the anatomy of academia is the anatomy of society. It does not accept that society is structured along the same lines of division of university faculties (Sankatsing, 1995, 2016).

By giving priority to nature and reality, extradisciplinaryity begins and ends in the natural social context, thus avoiding the problem of how to translate the results into practice. By taking reality as its starting point, extradisciplinaryity overturns the inverted logic of mainstream disciplines, according to which the artificial dividing lines of academia are also the skeleton of reality.

What does this ultimately mean for social science disciplines today? Should they be banned from all scientific precincts to make place for holistic extradisciplinaryity? Yes, but the problem of science is even more formidable. It is existential in nature.

4. The Transition from the Scientific Era to the Ethical Era

From the beginning, humanity has had difficulty finding convincing answers to its quest for knowledge and morality. The search for the source of truth has produced various worldviews that have characterized four eras, all of them with religious connotations or a belief in supernatural forces.

The naturalistic era was the first attempt to overcome the limitations of instinct-driven life by attributing willpower to the forces of nature through animism, which personified trees, mountains, forests, rivers

and natural phenomena. The transition to the mythological era occurred when the tribes' search for the origin of life crystallized into narratives guided by ancestral and other spirits and was transmitted through oral tradition. The belief that a supernatural creator marked the origin of everything led to the theological era, from polytheism to monotheism. Epic tales and revelations of the omnipotent creator through prophets, stone tablets or dictated sacred scriptures gave rise to religions. The scientific era entailed the secularization of theology, as the center of validation shifted from ethics to empirical facts and Reason became the new god. Since science deals with facts and not with values, it does not address ethical issues, which are at the core of religion.

This marginalization of ethics and the abolition of moral judgments deprived science of an internal mechanism to prevent the Frankensteinian danger and its vulnerability to abuse. An example of this is the invention of homo economicus as the main engine of economic life, which is not subject to the test of morality, not even to the law of evolution that dictates that growth stops when maturity is reached. Today this has led to a cancerous growth that is destroying the planet.

While science claims to be the ultimate expression of wisdom and knowledge and the guide to future evolution, nature warns us loud and clear that the human intellect has become the most dangerous artificial intelligence because it has disconnected itself from the natural evolutionary course. Under its watch, our species has lost its way and abandoned its harmonious integration with nature. The absurd act of humans intervening at will in life and death, extinction and survival, is a dangerous attack on the prerogative of evolution to create and eliminate life forms in order to maintain balance and harmony.

Science and ethics take opposite paths in the face of existential challenges and respond differently to discrepancies with reality. When science disagrees with reality, theory must be changed; when

ethics disagrees with reality, reality must be changed. Thus, ethics is better equipped for transformative action than science, which is trapped in system maintenance.

The transition from the scientific worldview to an ethical worldview is critical for the survival of our species. The greatest challenge is no longer to know better how reality is but to know how it must be in order to survive. This requires a radical shift from anthropocentrism to a harmonious engagement with nature and the universe. This will put an end to science's long history of coexistence with autocratic rulers, colonial conquest, cancerous growth, warmongering, exclusion of majorities, destruction of nature for economic purposes, and accumulation of capital to breed and fatten billionaires.

The shocking conclusion, with enormous implications, is that modern civilization has failed as a project of humanity. Without harmony with nature, with other people, with other cultures and with other belief systems, humanity has traveled under its watch from the gate of the cave to the brink of the grave. From the perspective of evolution, the most dangerous artificial intelligence is the Frankensteinian human intellect that deprived science from ethics.

Ethics demands transformative action to rehumanize humanity to overcome existential threats. The transition from the scientific to the ethical era is therefore fundamental to our chances of survival in prosperity.

The balance is thus shifting from the epistemology of the detached observer to the ethics of the engaged participant; from *homo sapiens*, the knowing subject, to *homo faber*, the creating subject. Instead of the search for a non-existent 'absolute' knowledge that has hypnotized science and epistemology for millennia, humanity must move to practical and contextual knowledge to meet the challenges of a particular time, space and reality.

The shift from science to ethics paves the way for a transition from the present decaying social organization to a sustainable coexistence in the future. Modernity's obsession with explaining, knowing and proving will only serve our species if it is functional to an evolutionary human project rather than trapped in the system maintenance strategy of a predatory system. This requires the submission of science and philosophy to ethics, in pursuit of justice, equality, balance with nature, and commitment to the future of humanity as part of the wonderful diversity of life on Earth. Instead of validating these values in laboratory conditions by disengaged and autonomous researchers, they should be applied and tested in transformative actions for development.

“Development is the mobilization of inherent potentialities in interactive response to challenges posed by nature, habitat and history to realize a sustainable project with an internal locus of command” (Sankatsing, 2016, p. 35). Enabling people to mobilize their potential from an internal locus of command in harmony with nature is a powerful prerequisite for justice, fairness, respect, equality and true freedom, which are pillars of ethics and the main components of a global ethic needed to make peace possible. Development is not only a key concept for understanding evolution, but an indispensable tool for creating a future worth living.

To overcome science's false presumption of truth, which has done immense damage to humanity's social evolution, science must humbly retreat into an instrument of liberation and technologically support humanity's project to survive and thrive, with ethics in the driver's seat for transformative action. Science cannot provide a solution to our urgent existential challenge because, by marginalizing ethics, it disconnected itself from the search for a solution for our existential challenges. The transition from science to ethics marks a radical shift from the “cosmic solitude of anthropocentrism” (Jonas, 1979) to a harmonious connection with nature and the universe.

5. Emancipation for Transformative Action

Humanity finds itself in a precarious state on a steep slope towards the abyss of oblivion, where windows of opportunity are rapidly closing amidst multiplying existential dangers. Many believe that science can offer a way of survival as a last resort, now that politics, religion, ideology, market economy, civil society and mass media have failed to provide any clue. Unfortunately, science itself is part of the problem as the main anthropocentric instrument for obtaining knowledge to dominate, manipulate and modify nature for the benefit of humanity and, more specifically, its elites and the one percent.

Throughout history, tyrants, rulers and empires have always accommodated, financed, hijacked and protected science for their project of domination, but never before has it been done so markedly as with sophisticated technology that is instrumental to modern civilization's obsession with monetizing nature.

Domination is only possible by controlling the mind through the imposition of false narratives. History has shown that dominant systems have so much to hide that they always resort to powerful myths, fables and storytelling as the central instruments of a system maintenance strategy. Philosophy, religion, ideology, literature, movies, fashion and lifestyles, but also science, have played their part as strategic instruments of global domination and hegemony by monopolizing the narrative.

The real power of the West is not located in its economic muscle and technological might. Rather, it resides in its power to define... The non-Western civilizations have simply to accept these definitions or be defined out of existence. To understand Eurocentrism we thus have to deconstruct the definitional power of the West. (Sardar 1999, p. 44).

Mental slavery is the most powerful tool to take control of history through the successful victimization of the victims, even to the point

of defining the other out of existence. An outstanding historical example is the acclaimed civilizing mission, which amounted to the cloning of the West in the rest of the world after turning their cultures into a blank sheet.

The anthropocentric symbiosis between modern civilization and science has been an assault to harmony with nature that has brought humanity to the brink of extinction. In evolution, there is no sustainability other than harmony with nature. Disharmony with nature is unsustainable and leads to discontinuity, existential crises and extinction. Ethics offers the worldview for an emancipated life in harmony with nature beyond the mundane limits of civilization. This makes the transition from the scientific era to the ethical era an essential requirement for the survival of humanity.

As we have noted, the greatest threat to the evolutionary process is modern civilization, which, with its worldview that the only beauty of nature is its monetary value and its understanding of development as the processing of nature into bank accounts, is putting life in mortal danger. We no longer live in harmony with nature; humanity has become an invasive species.

When science abandoned a holistic view of society and allied itself with hegemonic strategies of system maintenance, it became part of the menacing four-pointed iceberg – the domination of nature, fellow humans, culture and the mind. Now is the time to look beyond what the eye sees, deep into the submerged ice. Nature warns us with the intonation of a final call that modern civilization has reached the limit of its anthropocentric project to dominate and manipulate nature at will, driven by an insatiable desire for power, greed and glory.

The only way to reconnect with evolution to find a solution to our existential problems is an extrasystemic overhaul to rehumanize a dehumanized humanity. At a time when humanity is in deep existential trouble, the transition from the scientific to the ethical era is imperative to reconnect humanity with evolution. A liberated

science will then be able to make its contribution from a worthy place in the back seat of history, as theoretical and technological support for the project of rescuing our future, under the guidance of the ethical era.

Ethics, with its narrative for transformative action, must take its place in the driver's seat. "In a time where humans desperately need to engage as architects of the future rather than observe as bystanders, the choice for the ethical realm imposes itself at a global scale as an imperative for survival" (Sankatsing 2016, p. 369). Anthropocentric science has failed to provide a path of survival to a derailed species, but fortunately ethics offers a second chance in evolution that humanity should seize before becoming humanosaurs. Ethics is the key to rehumanizing a dehumanized humanity, and the key lies in the hands of humanity's moral reserves.

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