

VICISSITUDES OF COSMOLOGY AND GIORDANO BRUNO'S DISCOURSE WITH ARISTOTLE

Anna MAKOLKIN

Cogito ergo sum..
I think, therefore I am..
Descartes

ABSTRACT. *The metamorphosis of Giordano Bruno's cosmological world view – from the dismissive cosmologies of the Old and New Testaments to the Aristotelian contrasting natural philosophy – is the epitome of the clash between religion and science, Christianity and natural materialistic philosophy. It is also an indication of the persistent cyclicality in human cultural and intellectual history, marked by, intentional or unintentional, periods of obliterating the previous discoveries and accomplishments either in the name of religion or politics, i.e. simply to erase the undesired past. Bruno's conversion to Aristotelianism symbolized the true essence of the Renaissance, when the pagan Hellenic and Roman antiquity was given a chance to challenge the religious myth and exercise the cultural detour from the 4th century BC (Aristotle's time) to the 16th century AD (Bruno's time) or when the cycle of the first serious neo-Aristotelianism had occurred.*

KEY WORDS: *Cosmos; Universe; cosmological account or world view; cognitive detour; one(ness); Nous=Intelligence; triad(ic); homoeomery; anti-cosmology.*

1. Introduction

Giordano Bruno (1546–1600), the monumental uncompromising revolutionary of the Renaissance, heretic, burnt at stake for his philosophical beliefs, denunciation of religion and struggle for free secular thought, like so many others, came to his vision of cosmos via encounter with Aristotle. Having started his life as a believer who later had embarked on a career of a professed priest of the Dominican Order, Giordano Bruno would eventually completely move away from the ecclesiastical theology and church, coming close to the pagan ancient philosophy and cosmology. His cognitive, philosophical and analytical metamorphosis would ultimately lead to embracing Aristotelianism but not without qualifications. Despite the fact that the Aristotelian scientific materialistic vision had shaped his own epistemological system, Giordano Bruno, paradoxically, often condemned his true spiritual and intellectual mentor of antiquity.

Bruno's argument with Aristotle, most vividly displayed in his monumental work, *Dela Causa/ Concerning the Cause, Principle and One*, published in Venice in 1584. The work is of triple interest. Firstly, it is the most illustrative sample of the permanent impact of Aristotle on philosophy, science and intellectual life of Western civilization. Secondly, it is the most convincing manifestation of the Vician cyclical model in human history, marked by the periods of discoveries and their abandonment, worshiping and denunciation, forgetting and recalling the same concepts and ideas, inventing and re-inventing the same wheel, during the centuries

of human civilized, or not so civilized, existence. Thirdly, Bruno's system of thought exemplifies the transition from the Platonian to the Aristotelian paradigm.

Here, we shall deal with the phenomenon of revival or 'resurrection of Aristotelianism' at the moment Bruno's most daring denial of the Christian mythology, the sanctity of Christ, Christianity and primitive obscurantist cosmology, imposed by the Church in the midst of the blossoming Renaissance. We shall uncover the paradoxes of Bruno's doctrine, rooted in Aristotle, and yet occasionally rebelling against it. His doctrine was **the doctrine of the heroic overcoming** – the famous heretic had to expunge his Belief and come to pagan philosophy upon the re-discovered in the Renaissance Aristotle, then to dare to leave Plato, finally engaging in the critique of Aristotle. His analytical metamorphosis which had ended with the construction of an eclectic **anti-doctrine and anti-cosmology** is the final part of the present study.

2. Bruno's First Step to Neo-Cosmology: the Hebrew Cosmos

Giordano Bruno's pathway to Aristotelianism started with the close re-reading and critique of the pro-sacred text, i.e the Old Testament, and the daring denunciation of the authority of Moses in 'the First Book, commonly called Genesis.' The reductionist tone of the First Book reveals the **axiomatic acceptance** of the given and the desire to dispense with the physical reality, the structure of the universe as soon as possible in order to focus on the life of the people. The Greek writer and Church father of the first millennium, Origen (185?-254 AD) observed that "Hebrews worship the heaven and the angels in it, yet they reject the most sacred and powerful parts, the sun, the moon, and the other stars, both the fixed stars and the planets" (Origen 1953:267). His critique of the Hebrew cosmology attests to the somewhat advanced cosmological reasoning which reigned in the days of the early Christianity and later gave way to the radical and fanatical theology. It is this more liberal thinking that would be revived in the 12th century, upon the re-discovery of Aristotle, led to the promotion and adjustment of Aristotle's concept of 'the prime mover' to the idea of the Creator, marrying thus ecclesiastical theology and much needed materialistic scientific thinking of antiquity.

Giordano Bruno, the believer, read the story of creation of the universe in the original Hebrew, which, according to his biographer, Ingrid D. Rowland, "he learnt at San Domenico" (2008:55). (Incidentally, the 16th-century Naples was the centre of Hebrew publications and the abode of many former Spanish Jews and Marranos who had fled Spain in 1492. Nola, the little town where Bruno was born, was in the vicinity of Naples.) The Biblical Hebrew rendition of cosmos was **geocentric** and highly dismissive of its structure, origin and impact on human life.

Cosmos itself did not interest the Hebrew rural tribe, preoccupied with the power of the invented single god. Carmen Blacker and Michael Loewe maintain that the Hebrews "did not develop in any period of their history a special cosmology of their own. They adopted or accepted the cosmologies of the various civilizations in which they lived. [Their] preoccupation was with God, the creator of Cosmos, but not with the cosmos itself" (1975:66). And, indeed, with respect to cosmos, the Hebrew

cosmology, as evidenced by the Old Testament, was dismissive and reductionist, representing just a minor motif in the ‘sacred text’ and focusing more on the assertion of the monotheism and the collective identity of its creators. The road to the triumphant monotheism and tyranny of Belief was paved with obsessive fixation on the Collective Self and its exceptional place among the neighbors. The towering single omnipotent creator, a ingenious product of collective tribal imagination/*fantasia*, replaced the cosmos, the eternal preoccupation of all previous civilizations. Bruno, interested in the *cosmic concepts* of the ancient sages, would later ask his readers to familiarize themselves with the ideas of even more advanced ancient people, such as Babylonians, Chaldeans or Persians, the very civilizations amongst which the creators of Genesis had been living. Giordano Bruno stated in his monumental *De la Causa*:

Nature makes everything out of its matter by way of separation, birth and effusion, as Pythagoreans understood, Anaxagoras and Democritus comprehended, and the sages of Babylonia confirmed (1950:155).

This conclusion made by a former professed priest exhibits his total rejection of the sacred narrative, as well as the evolution in his own thinking, displaying the understanding of the evolving cosmology and accounting for the new scientific knowledge. The 16th-century thinker who had left behind the religious institution and its mythology-based teachings came to pagan ancient philosophy, having experienced his utter dissatisfaction with the *mini-cosmology* it had been offering.

After all, Giordano Bruno was not only the recipient of the Biblical text, but he was also the descendant of Virgil, Cicero, Lucretius, Dante and Petrarch who had processed the Hellenic formative heritage as well, i.e. the legacy of Hesiod, Homer, Euenus, Epicharmus, Sophocles, Homer, Parmenides, Democritus, Anaxagoras, Zeno, Thales, Plato and Aristotle. The very term “cosmology”, originating from the Greek *hosmogonia*, entered all Indo-European languages (Webster’s Ninth College Dictionary, 1987:294).

3. The Cycle of Christian Delusion and Paradoxical Existence

The adoption of Christianity, the clone religion of Judaism, by Emperor Constantine (303–337AD), had ultimately not only brought on the destruction of the Roman Empire, but it caused the **cultural and cognitive detour** of the very advanced secular society and Western civilization. According to Niccolo Machiavelli (1469–1527), Christianity arrested the development of culture, philosophy, and science, including cosmology. He characterized the time span between the 4th and 12th century AD as the most regrettable period in the history of Western civilization, the time of forced *cultural amnesia*, forgetting the pagan Greek and Roman thought and submitting to the reductionist primitive mythology. Machiavelli’s *cultural diagnosis* predates Bruno’s rebellion and condemnation of the church. Nearly half a century prior to the shameful trial of Giordano Bruno, he openly blamed the reign of the Judeo-Christian doctrine for, what he considered as, retardation of Europe and the dismantling of the advanced secular multicultural Rome. The convenient oppressive

simplistic mythopoesis of Christianity had displaced the achievements of all previous ancient advanced civilizations, ultimately leading to the state of obscurantism and punishment of Reason. During the triumph of monotheism, be it Judaic or Christian, the heirs of the Sumerian, Egyptian, Phoenician, Assyrian, Babylonian, Persian, Greek and Roman civilizations had been forced to forget their collective enlightened past, the systems of thought and reasoning, scientific discoveries, technological inventions, legal codes and social accomplishments.

But the collective human mind could not be completely paralyzed by the imposed religious mythology and tyrannical religious church. Despite the fact that the Church fathers and guardians of religion had destroyed numerous scientific and philosophical treatises of the brilliant thinkers of the past, the destruction was not complete, some texts, including Aristotle's works, had survived and eventually would be unearthed in the post-Christian Europe. The rediscovered pagan legacy of antiquity would lead to the new cycle of Western civilization, the historic *Rinascimento* or Renaissance, marking the rebirth of Reason and creativity. Science, art and philosophy would blossom despite the powerful control by the Church. Humans could not stop thinking and creating despite the tyrannical censor. But since the 4th century AD Europe had been living in the schizophrenic world of divided loyalties — oscillating between the church and state, following the flights of free thought and analysis, and submitting to the myth. The religious myth dictated passivity, submission and unconditional acceptance of the *divine cosmology*, preeminence of God, arresting any inquiry, while human mind dared to reason and cognize the world. It is a cycle of a fearful and paradoxical symmetry – God was worshiped in the church, supervising the university, but the curriculum included astronomy, physics, medicine, chemistry, ancient philosophy next to theology. The quest for knowledge and the barriers to its acquisition had been living side by side, as the most vivid manifestation of the “unity of the opposites” or, ironically, the Aristotelian opposites.

Moreover, the rebellion against the Christian dogma and the overall Doubt of the Religious had been permanently percolating. Not all “blasphemous texts” had been destroyed. For long fourteen centuries, people could still read Cicero's treatise, *On the Nature of Gods* and ask the most profound question, “How do Gods pass their time” (1988:228). In the same work, Cicero (146-43 BC) told the remarkable story of the ancient Greek sage Protagoras (485–410 BC) who was banished by the Athenians from the city and its territories, and his books were publicly burned, because these words were the beginning of the treatise, concerning Gods: ‘I am unable to arrive at any knowledge whether they are, or are not any Gods (1988:231).

A couple centuries later, Cicero, this proud wise Roman, the ruler of the most advanced secular society and civilization known to us, uttered something very similar, with the same passion and defiance: “I allow that there are gods. Instruct me, where they are, what sort of body, [and] mind they have. Gods go by the names we give them” (1988:232;234).

At a time when Aristotle may have not yet reached the Christianized Italian states, the remnant of the destroyed pagan Roman Empire, Cicero could be still read,

as well as his admired mentor Titus Lucretius (100? –50?BC), the author of the historic *De Rerum Natura/ The Nature of Things*, the poetic treatise on materialistic philosophy and science.

Lucretius revived the ancient Greek materialistic philosophy and early science in a brief poetic recollection:

Now I begin to make
 My discourse on the lofty law of gods and heaven above,
 And I shall reveal the building blocks all things are fashioned of,
 Nature's prime particles, from which she nourishes and grows
 All things, and into which once more she makes them decompose.
 We term them in philosophy, according to our needs,
 Matter, atoms, generative bodies, elements and seeds,
 And first-beginnings since it is from there all proceeds.
 (2007: Book One, 4–5).

Thus, in the very beginning of his poetic monument to Reason, Lucretius states unequivocally his position on the Nature, order of things on Earth, and in the Universe, and Cosmos. In his view, replicating the wisdom of brave martyr Protagoras and numerous other ancient thinkers, the Roman poet not only elevated the role of materialist Hellenic philosophy, but he also denounced Religion, which “breeds wickedness and that has given rise to wrongful deeds” (2007:5). The martyr of the Renaissance, Giordano Bruno must have been familiar with both Lucretius and Cicero, their passionate words, next to the word of God-Christ. This awareness of such contrasting world views created a paradoxical universe of Being for all post-Christian writers, thinkers, intellectuals and rebels, willing to throw off the shackles of religion.

4. Resurrecting Aristotle

The paradoxical and divided, if not schizophrenic, existence between the tyrannical religious myth and free thinking, the sacred text and philosophical discourses of pagan antiquity, between Belief and Doubt became obvious event to the Church fathers. This awareness may have contributed to the desire to reform the Catholic Church by some Catholics and to the foundation of the Roman Catholic Society of Jesus (Jesuit) in 1534, twelve years prior to the birth of Giordano Bruno. Jesuits, who relied on Aristotle in their evaluation of natural philosophy, next to Thomas Aquinas, encouraged academic pursuits and debates about Cosmos, cosmology and place of man in the Universe.

Aristotle actually was re-discovered by Europeans in the 12th century via vitriolic translations from Hebrew, Arabic, Greek and Latin, and since then was introduced into the curriculum of all major Italian and European Universities. Paul H. Michael utters with authority that “Aristotle reigned supreme in the great Protestant Universities, at Oxford, Padua and Paris” (1973:35). All Universities, functioning under the watchful eye of the Church, be it Catholic, Protestant, Anglican, or other, eventually had to make a compromise by adopting the Aristotelian texts for university instruction. So great was the power of the ‘resurrected’ ancient pagan sage

that the Church fathers even included him into their theological debates. It happened thanks to the philological loophole they found in the Aristotelian text— *Nous/Intelligence* from Aristotle's *Metaphysics* was misinterpreted as God. This secured Aristotle's safe admission into the pantheon of the supervised by the Church instruction, 'purified' the general academic discourse, enlivened theology and invigorated the Christian doctrine at large.

The idea of the **Universal Intellect** =NOUS or INTELLIGENT COSMOS came to Aristotle in his re-reading the works of Anaxagoras (500?–428 BC) whom he regarded as the "first rational philosopher and radical of antiquity." Back in 500 BC, Anaxagoras had defiantly named "the Sun to be the burning mass rather than the embodiment of God Apollo" (Alexander Herten, 1944[1845]:63).

Lucretius, five centuries later, would recall Anaxagoras, Aristotle's rationalist idol, in his Book I of the *De Rerum Natura*, called "Matter and Void":

Let us turn to Anaxagoras's homoeomery –
 Due to the dearth of our Mother tongue, I use the term of the Greeks,
 Though the thing itself is easy to explain. First, when he speaks
 Of homoeomery in things, it's clear that he supposes
 That bones are made of itsy-bitsy bones, and what composes
 Flesh is teensy gobs of flesh,...
 This system goes for everything else...
 (B. I., 2007:17).

Trying to explain the ongoing process of eternal movement and division in the Universe, Lucretius finds a strong authority in this forgotten Greek sage and Aristotelian mentor, simultaneously making a strong contribution to the history of materialist ideas, natural philosophy and secular counter-cosmology. The recall of Anaxagoras's homoeomery in Lucretius might have been quite useful in the process of excavating the Aristotelian paradigm.

5. Giordano Bruno- a Born-again Aristotelian

On his pathway to secular natural philosophical thinking and 'converting' to Aristotelianism, Bruno had to accept his first crucial premise that the planets and the stars were not the deeds of God but the 'natural things'. From then on, the Dominican priest could no longer sustain his belief in the acts of God, he had to convert to the materialist philosophy and Aristotelianism. Later, in his famous naturalist work, *De la Causa*, Giordano Bruno stated that "the principle is that which intrinsically contributes to the constitution of things and remains in effect." This was an echo of Lucretius, Cicero and a direct derivative from the Aristotelian legacy, signifying a complete revolution in Bruno's perception of the world, as well as his coming to naturalist philosophy and abandoning the Christian primitive God-oriented cosmology. If Aristotle used the plural form of the term "principles," Giordano Bruno chose to use the singular one, but both of them imply the same meaning. Aristotle in his *Physics* explains that "principles must not be derived from one another, nor from anything else, while everything has to be derived from them" (1985, vol. I:321). According to Aristotle, the **contraries** (or united opposites) constitute the principles:

“Everything that comes to be by a natural process is either a contrary or a product of contraries.” (1985, vol. I:322).

Having finally overcome and rejected the Judeo-Christian **anti-cosmology**, Giordano Bruno finally returned to the materialistic ancestral ground of the pagan Greek and Roman antiquity and scientific inquiry. He then came to a conclusion that true civility comes with the acquisition of scientific knowledge, “since science is an excellent way to make the human soul heroic” (1950:103). And in the best tradition of the ancient pagan thinkers, Bruno accorded primacy to philosophy in the pursuit of knowledge about the world and the triadic (in the Aristotelian manner) structure, labeling them “fountains of knowledge.” He distinguished three foundational fountains in philosophy: the Platonian, Aristotelian, and Pythagorean (1950:102).

Without naming the inventor of the term “fountain,” Bruno indirectly refers to the obscure and forgotten French scholar, Godfrey Saint Victor (1125-98) whose treatise *Fountain of Knowledge* he must have read as a part of his theological training. Godfrey Saint Victor metaphorically described the method of learning as “drinking from the seven fountains of unified knowledge” (Anna Makolkin, 2009:149). But drinking from “the Aristotelian fountain”, Giordano Bruno limited his own system to the triad: **Cause, Principle and One**. He also defined “the cause” or the origin of the Universe in the strictly Aristotelian terms when he wrote the following: “I say that the universal physical and efficient cause is the universal intellect” (1950:111). But Bruno wrote in the presence of the most vicious Christian censor. From the very start of his dangerous journey to scientific materialism, Bruno understood that the liberty to convert to Aristotelianism had the ultimate heavy price. So he often included into his “blasphemous” discourse a protective statement. For instance, he cautiously inserted into his Second Dialogue a somewhat contradictory statement, “We call God the first principle” (1950:111). But the contradiction was easily detected and could be dismissed as a *discursive pacifier* within the overall blasphemous narrative, totally in the style of the Aristotelian cosmology.

When Bruno talks about the “accidents in the universe”, he actually follows the Aristotelian notion of “plurality of things,” articulated in his *Physics*. Puzzlingly enough, Bruno hardly ever quotes Aristotle directly, nor does he mention the work he is actually referring to. When Aristotle speaks of “change,” Bruno labels it as “accident,” which in complete accord with the Aristotelian term and understanding of the natural cosmic processes – after all, Aristotle distinguished between the “logical systemic changes and accidental.” Some changes are beyond human will, while some are a product of choice, and to empower Man, Aristotle taught, “Choice implies thought,” implying that not a divine power but a human one is substantially responsible for numerous human activities Here and Now. The 16th-century Church continued to dogmatically insist on the opposite, and Bruno’s liberation was traumatic and never complete. In his *Second Dialogue*, Bruno defined three types of intelligences: “the divine which is in all things; the mundane which makes all things and all other particular ones which become everything (1950:113).

If the pagan sage of antiquity could be completely unconstrained, a 16th-century former priest was forever in the clutches of the Catholic Church. Aristotle (384–322

BC), untouched by the religious mythology enjoyed much more freedom in times of pagan antiquity, than his Renaissance follower in the 16th-century Catholic Italy. Aristotle fearlessly and simply proposed three branches of knowledge. Speaking in his *Physics* of the “things which are incapable of motion, but indestructible, the second [set of] things in motion, but indestructible, the third, the destructible things”, Aristotle clearly envisaged the three future interconnected branches of natural sciences:

1. Geology; Chemistry; Paleontology;
2. Astronomy; Astrophysics;
3. Biology; Botany; Medicine

Bruno implied (or did he not?) just the following:

1. Theology;
2. Philosophy; Sociology; Arts;
3. Biology, Zoology; Medicine.

At any rate, no matter how imperfectly or incompletely, Giordano Bruno managed to liberate and disassociate himself from the sacred text, from the wisdom of Moses and Christ, and freely drink from the ‘fountain’ of pagan Graeco-Roman wisdom. His ultimate, strictly Aristotelian, **cosmological world view** for which he would pay with his life, was highly eclectic in nature, being a synthesis of the ideas of Plato, Democritus, Anaxagoras, Homer, Hesiod, Cicero, Lucretius, Virgil, Dante, Machiavelli and others. Having shed the Judeo-Christian primitive cosmology and religious mythology, Giordano Bruno came to believing in Aristotle and his teaching by tracing the very cognitive pathway, trodden by Aristotle himself, i.e. Hesiod, Homer, Etruscan notes, Phoenician, Egyptian, Babylonian, Persian, Assyrian early science, astrology, Pythagoras, Anaxagoras’s **homoeomery**, theories of Empedocles, Parmenides, among others. But as a modern thinker Bruno had to take into account the modern theories of cognition and natural philosophy as well. Armed with the Aristotelian philosophy and cosmology and familiar with the post-Christian Aristotelianism, Giordano Bruno articulates his own **principle of unity of knowledge**. Thus, in his *Third Dialogue*, Bruno comes to the following conclusion:

From the contemplation of the **macrocosmos**, we can easily, after having made necessary deductions, arrive by means of comparison to a knowledge of the **microcosmos**, the small parts of which correspond to the large parts of the macrocosmos (1950:125).

Here, Bruno, seeing the unity of the universe and the interconnectedness of all its parts, constructs the analytical bridge between the Renaissance and future post-modern neo-Aristotelianism and the future **Biocosmology**. His third principle of One is a link between the pre- and post-Aristotelian materialist thought, Avicenna and his own Renaissance period during which the secular materialist vision of the world was revived. It is a moment of resurrection of the enlightened Hellenic and Roman antiquity in the post-Judeo-Christian period. Paul H. Michel defines Bruno’s cosmology as a system “based on two main principles: the infinitude of the universe and its homogeneity (P. Michel, 1973: 178). Here, there is a basic difference – if Aristotle saw the Universe as a sum of pluralities, a diverse unity of expressive

matter, Giordano Bruno insisted on homogeneity. However, the scholar is convinced that “his starting points are strictly Aristotelian (P. Michel, 1973:271).

6. Bruno’s Despair and Cultural Paradox

In his *Fifth Dialogue*, Bruno utters the following through the voice of his fictional interlocutor Gervasius: “How is that Plato who came after Pythagoras, did not do something similar or better than Pythagoras?” (1950:167) Bruno was amazed that Pythagoras (580–500 BC), predating Plato (428–347 BC) by century and a half, had produced the most elegant theory, which “posited the numbers as the specific principles of things, [having] understood unity as the foundation and substance of all (1950:166). He could not accept the fact that distance in time did not always signal advancement and improvement. Under the spell of the *myth of progress*, Bruno would have liked the later thinkers and scientists to have surpassed their predecessors. But the reality of human civilization and history of culture never followed the escalating progression line. In fact, the “later” often did not imply the “better”, the more advanced.

Rather, just the opposite has been observed to be true – the later societies often had to re-discover the wheel centuries afterwards, retrieving what had been lost and forgotten longtime ago. For instance, the later Christian societies would never surpass the ancient secular Rome in ethics, morality, arts, culture, jurisprudence, and social order. The rights of women and minorities, ethnic or religious, would never be respected in Christian Europe more than in the pagan Rome. The 20th or 21st-century art, music and architecture would exemplify the creative barrenness of the later civilization which could never even remotely attain the sophistication, elegance, complexity and beauty of the Renaissance, or the Victorian era. The millennia which separate Christian societies from the pagan Romans did not bring either progress, beauty or goodness. The Judeo-Christian religious myth not only retarded the scientific progress with its primitive cosmology, but it hardly made man more moral with the invention of the most political god-Christ. Bruno, amidst the towering Renaissance, had to admit with regret that the old sages had possessed something which neither he, nor his contemporaries, and even the next generations, could ever approximate, never mind surpass. He also felt that the 16-century mind, brainwashed by the Judeo-Christian theology and mythology, could not surpass the ancient thinkers, particularly Aristotle. This caused Bruno to despair passionately. With equal passion did he thunder against the ancient powerful and revered mind as against the fathers of the Church.

Despite the nearly organic commonality of the analytical arguments and the analogous mode of thinking between Bruno and Aristotle, their shared views on the structure of the Universe, and fundamentally similar cosmological systems, Giordano Bruno paradoxically put forward sweeping accusations against Aristotle. In his *Fifth Dialogue*, Bruno surprises with the following rant:

Aristotle, among others, who did not find unity, did not find being, and did not find truth, because he did not recognize being as one;.. He has not been very clear in the truth, through not deeply considering the knowledge of this unity and the indifference of constant nature and being; and as a

right shallow sophist, he perverts the meanings of the ancients and opposes the truth, with malignant explanations and fickle persuasions – not so much perhaps through the imbecility of intellect as through the force of jealousy and ambition (1950:163-4).

Bruno's truth implied that the universe was infinite and wholly in all its parts, and everywhere the same. Blinded by the **myth of progress**, he was convinced, that his view of a 16th-century materialist was more correct than the conclusions of the most powerful ancient sage. His statements contradict often his own conclusions, and even distort Aristotle, who clearly stated in the Book I of his essay, *On the Heavens*, that "there cannot be more worlds than one" (1985, vol. I: 459).

In fact, so superb, dazzlingly clear and astoundingly insightful was the Aristotelian cosmology, for millennia, that hardly anybody could offer a more elegant and profound basic cosmic paradigm. The remarkable arguments and intuitive insights, made at the dawn of naturalist philosophy and in the actual absence of science and technology by this allegedly "shallow sophist," "the prince of the Peripatetics," and "the great Macedonian," have remained unsurpassed even in the 19th and 20th centuries. The antecedent of the modern empirical sciences, Aristotle managed to leave behind not only most of the Hellenic philosophers of his past, but he also remained unequalled in modernity. This became obvious to Alexander Herzen (1812-70), a prominent Russian 19th-century thinker.

Since the 12th century, the fathers of the Church who understood the towering value of the Aristotelian thought and its applicability for Christian theology, adopted it for the reinforcement of their doctrine. But walking the thorny pathway from the Christian theology to naturalist materialist philosophy and ultimate blasphemous atheism, and seeing how theology "was nourished by Aristotle," Bruno threw the baby with the bath water – he chose to condemn them all, both the Church fathers, their Aristotle-based revised theology and Aristotle himself. Bruno's revolt against Aristotle was a symbolic revolt against the centuries of silence and suppression of inquiry by the Christian Church. The former Dominican monk and priest was so overwhelmed by his own belated encounter with the pagan wisdom that he was angered with his own inability to 'outdo' the ancient thinker.

Bruno, a refugee from the Christian theological universe, was making an effort to synthesize the entire known cultural legacy, from antiquity to his own Renaissance time. While discussing cosmos, forces of the universe, its structure and natural matter in general, Bruno placed side by side Pythagoras, Democritus, Anaxagoras and Moses, the icon of the Judeo-Christian doctrine. Unable to shed easily his religious indoctrination or when short of arguments, he still relied on the Biblical discourse. Thus when he claims that

all that makes difference and number is pure accident, pure figure and pure complexion. Every production of whatever kind that it may be, is an alteration, with the substance always remaining the same, because this is one – one divine and immortal being (1950:163)

He actually, paradoxically, retains his loyalty to the sacred text and Christianity. Trying to convince the readers, he often repeats, "Solomon understood this."

Having exhausted his arsenal of scientific and philosophical arguments, the

future heretic reconciles the Hellenic, Roman and Hebraic, pre- and post-Christian discourses. Nonetheless, Bruno's attempt to create a unified cultural narrative did not stop the Inquisition. Bruno had actually difficulty forgetting the **iconic paradigm**. Constrained by the dominant beliefs, Church censorship and millennia of religious indoctrination, Bruno was not completely free from the clutches of the **religious mythology**. Accused of blasphemy and heresy, and having ultimately expelled God from his own mind, Giordano Bruno actually agonizingly wrestled with the re-discovered Aristotle, ancient pagan atheism, pantheism, Platonian idealism, the Renaissance humanism and theology, "nourished by Aristotle". His doctrine of the ultimate cause and principle was a complex synthesis of the various **cosmologies** and **anti-cosmologies**. In the view of Irvin L. Horowitz, "his was an eclecticism that stemmed from an over-eager attempt to unite all philosophical camps under a single domain" (1952:119).

7. Conclusion

Bruno's pathway from religious to the secular naturalist thinking or his conversion to Aristotelianism symbolizes the overall European painful metamorphosis and lengthy **cultural detour** which took millennia due to the powerful but harmful reign of the Judeo-Christian intentionally **dismissive cosmologies**.

His major significance for contemporary scholarship and post-modern Biocosmology lies in the area of establishing the **macrosom** and **microcosm**, and their connectedness, as well as the concept of perfectability of man and the universe. His doctrine of overcoming the myth became the doctrine of being and Becoming in Cosmos. His initial triad – God, Nature, Man – had been transformed into Cosmos, Man, and their Perfection. Regrettably, he had no opportunity to either to witness, or contemplate it longer than he did.

References

- Aristotle. (1984). *Complete Works*. 2 vols., ed. by Jonathan Barnes. Oxford: Oxford University Press.
- Aristotle. (1984). "Physics" in *Complete Works*. 315–447; vol. I.
- Aristotle. "On the Heavens" in *Complete Works*. 447–512, vol. I.
- Blacker, Carmen & Michael Loewe, ed. (1975). *Ancient Cosmologies*. London: George Allen & Unwin Ltd.
- Bruno, Giordano. (1950). *Concerning the Cause, Principles and the Infinite*. Trans by. Sidney Greenberg. New York: King's Crown Press.
- Godfrey of Saint Victor. (1800?). *The Fountain of Philosophy*. N.p.: n.p.
- Hertzen, Alexander. (1944). *Pis'ma ob izuchenii prirody* (Letters on Studying Nature). Moscow: OGIZ.
- Horowitz, Irving Louis. (1952). *The Renaissance Philosophy of Giordano Bruno*.

- New York: Coleman Ross Co. Inc.
- Lucretius. (2007). *The Nature of Things*. Tr. by A.E. Stalling. London: Penguin.
- Machiavelli, Niccolo. (1950). *The Prince and the Discourses*. Intr. by Max Lerner. New York: Random House.
- Makolkin, Anna. (2009). *Wisdom and Happiness, with or without God*. Toronto: Anik Press.
- Makolkin, Anna. (2008). Aristotelian Cosmos and Its Poetic Origins” in *E-Logos*.
- Makolkin, Anna. (2008). “Biocosmology as a New Sign and Its Possible Meanings” in *E-Logos*.
- Makolkin, Anna. (1992). “Vico’s Firstness, Secondness and Thirdness” in Marcel Danesi, ed Giambattista *Vico and Anglo-American Science*. Berlin: Mouton de Gruyter, 1992, 121-27.
- Michel, Paul. Henri. (1973). *The Cosmology of Giordano Bruno*. Tr. by R.E W. Maddison. London: Methuen.
- Origen Contra Celsium*. (1953). Tr. By Henry Chadwick. Cambridge: Cambridge University Press.
- Rowland, Ingrid D. (2008). *Giordano Bruno*. New York: Farrar, Strauss & Giroux.
- The Holy Bible* Revised Standard Edition. (1971). Toronto: Canadian Bible Society.
- Vico, Giambattista. (1961). *The New Science of Giambattista Vico*. Tr by Thomas Bergin and Max Harold Fish. New York: Anchor Books.