

# Divinity, Universe, Soul and Matter in *De la causa, principio e uno* of Giordano Bruno

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## Abstract

In the work of Giordano Bruno (1548 - 1600) at the beginning of the emerging modern epoch, various lines of religious philosophy in the preceding European tradition were *forged into* an original metaphysical vision. At the same time, he offered an alternative to the types of religious and scientific thinking that would become dominant in the following four centuries. In the context of an emergent readiness to reappraise the relevance of the Nolan for religious cosmology (exemplified by Jochen Kirchhoff), this article provides a structural analysis and interpretation of the second of Bruno's Italian dialogues (*De la causa, principio e uno*), written in London in 1584. Attention is paid to the interrelationships between the constitutive concepts divinity, universe, soul (with the universal intelligence), and matter, in the context of his distinction between cause and principle.

## Background and Relevance

In July 2004, British scientist Stephen Hawking admitted that his previous theory which claimed that nothing could escape from black holes, was wrong. Consequently, his revised view now allows for matter and energy to leak, in distorted form, from black holes into the infinite universe after millions of years as the black holes themselves evaporate.<sup>1</sup> Hawking's new line of argument opens an interesting perspective on the role of matter in the religious metaphysics of the late-Renaissance thinker, Giordano Bruno (1548-1600), whose deviant views resulted in him being burned at the stake by the religious establishment of his day. Not surprisingly, Hawking does not establish any link with the remarkable

religious thinker of the early modern period. Contemporary mainstream science would have no reason to be interested in Bruno, as he is not a well-known philosopher today. However, there are those who see his ideas as offering an escape from the cul-de-sac of modern religion and science as far as their theoretical foundations, as well as their practical applications, are concerned. It is increasingly being recognised that today humanity is at a crossroads as far as its understanding of nature, its own position in nature and its dealings with nature are concerned. The road of the technological manipulation of nature that was followed over the last four centuries, often with religious legitimation, is widely admitted to be leading to an ecological disaster of catastrophic proportions. The religio-metaphysical roots of a relationship with nature that would be relevant to contemporary conditions are, clearly, worthy of attention. Standing at the beginning of the incipient modern epoch, Bruno represents a manner of thinking that may transcend the limitations of his time and present an alternative to the paradigm that has dominated the modern period.

In Bruno, a variety of historical lines meet (Michel 1973: 28 ff). Immensely erudite, he provides an original mix of elements that were somehow all present in the European tradition. Expressed at the time of the Catholic Counter-Reformation, his essentially neo-pagan thought is an eclectic, yet creative, celebration of the pre-Christian European classical tradition, with the pre-Socratic philosophers particularly prominent as well as Neoplatonic thinking to which he is most inclined. Bruno's line of thought was synthesised with elements derived from the European esoteric tradition (Yates 1964) and found his greatest precursor in the Neoplatonic mystic, Cusanus (1401-1463) and his speculations on infinity. Thus in his own way, Bruno arrives at a metaphysical system beyond the two strongest religio-philosophical streams of his day: Aristotelianism and Neoplatonism. In spite of his vehement criticism of Aristotle, Bruno continues essential elements of Aristotle's hylemorphic cosmological structure, including the notions of a universal intelligence; a world soul governing matter, which is conceived as the formless, unformed *arché* of nature, pure potentiality; the heavenly bodies as living, souled substances; and divinity beyond all things. From Plotinus, he took over the notion of the world as emanating from the one, thereby infusing the whole with a religious fervour and a dynamic ontological continuity lacking in Aristotle.

Though officially sidelined in mainline European philosophy in following centuries, due no doubt to the manner of his death, Bruno nevertheless surfaced in the work of a number of thinkers, including Spinoza (1632-1677) and Schelling (1775-1854). Worthy of investigation is Bruno's grandiose, poetic religio-metaphysical imagination but with definite scientific implications. Bruno's fascination and relevance for a contemporary religious metaphysics lies in his subtle harmonisation of the concepts of divinity, universe, soul and matter. The chasm between his type of thinking and traditional religious supernaturalism, with its

breaks between God and world, and between soul and matter is unbridgeable. Clearly his kind of thinking would not be admired in modern mainstream science either. Yet he certainly points in the direction of a kind of religious thinking exemplified by figures such as Alfred North Whitehead, Teilhard de Chardin, Rupert Sheldrake, David Bohm, Ken Wilber, Shiuji Inomata, Theodor Roszak, Ernst Jünger, Ervin Laszlo, Amit Goswami, Johannes Heinrichs, John Davidson and others, some of whom were/are working in the counter paradigm that has become known as the 'New Science'.

The most promising interpretation of the Nolan is to read him as a great forerunner of a kind of holistic thinking that might lead out of the impasse brought about directly, or indirectly, by modern science-technology-industry and its concomitant, positivism - both of the secular and the religious variety. Bruno was neither theist nor pantheist, neither idealist nor materialist. From a contemporary perspective, gaps in his thinking, such as the undeveloped links between matter and soul, are evident. In the sixteenth century, the flowering of the life-sciences and of organic thinking still lay in the future. However, the direction of Bruno's thinking is clear, and its anticipation of ideas that have become highly topical today is remarkable. Not least among these have been his resolute rejection of the disrespect for women and the associated contempt of matter and body, which were - and still are - part of inherited culture: dominant popular monotheistic religion and dominant popular science. In *De la causa, principio e uno*, disdain of matter and disdain of women go hand in hand, and both are held by the arch-pedant, Poliinnio, who impersonates everything that Bruno despises.

To my knowledge, the most assertive extension of Bruno's ideas today is provided by contemporary German philosopher Jochen Kirchhoff (1998, 1999), who finds in Bruno's thinking the blueprint for an ecological metaphysic for the future and, essentially, provides a reinterpretation of Bruno's religious cosmology, updated with reference to contemporary physics. He states:

Ich glaube, dass die Beweisführung für ein real unendliches, unendlich belebtes und beseeltes Universum, wie sie Giordano Bruno in seinen kosmologischen Schriften von 1584 bis 1591 vorgetragen hat, noch immer unwiderlegt ist'. (Kirchhoff 1998: 120)

Bruno indeed provides the main impetus in Kirchhoff's spirited attack on mainstream physics as well as his proposition of an alternative. Following Bruno, he emphasises the 'wirklichen, konkreten, leiblich-seelisch-geistigen In-der-Welt-Sein' of the human being (Kirchhoff 1999: 31). Similarly to Bruno's broad rejection of sixteenth century thought, Kirchhoff presents his own ambitious reflection as a frontal assault on mainstream science from Newton up to, and including Einstein. He attacks pivotal scientific ideas such as the Big Bang, theories of

relativity and Quantum physics, and the introduction of an alternative religious and scientific vision along the lines developed by Bruno.

Bruno also provides interesting material for comparative religious thought. In the history of western thought, his views on an infinite universe, populated with many kinds of living beings, may be the closest approximation to Buddhist religious cosmology, particularly of the Mahayana variety.<sup>2</sup> The exploration of possible similarities between Bruno and Buddhist views concerning, for example, the nature and function of matter and the notion of substance, will be a worthwhile undertaking. In *De la causa, principio e uno* Bruno cautiously seeks alliances with a number of key witnesses from non-Christian backgrounds as far as his cosmological views are concerned. Apart from the Greek and Hellenistic predecessors, he mentions the Spanish Jewish thinker Avicbron (c1020 - c1070) (whom he, and his generation, mistakenly regarded as an Arab)<sup>3</sup>, and the Spanish Muslim thinker Averroes (Ibn Rushd 1126-1198). Likewise, Kirchoff explores the possibilities of achieving a new integration of science and religion provided by non-monotheistic religions. In his case, his partners are Hinduism and Buddhism. Like Bruno's, Kirchoff's philosophy amounts to the rehabilitation of nature in a cosmic religion.

### De la causa, principio e uno

Within the ambit of the religious metaphysics and cosmology of Bruno, this article sets itself the limited task of a structural analysis of the second of his six sets of London Italian dialogues, *De la causa, principio e uno*, complemented with a few pointers to Kirchoff's explicit extension and application of some of his basic ideas. A detailed interpretation of Bruno and Kirchoff falls outside the scope of this article. *De la causa, principio e uno*, completed in 1584<sup>4</sup>, acted as a bridge between the highly polemical *La cena de le ceneri* and his greatest metaphysical work, the sublime *De l'infinito, universo e mondi*. The lively debates of *De la causa, principio e uno* can be reduced to a simple, internally consistent plot, admitting that his oeuvre as a whole, spread over a number of volatile Italian dialogues and Latin poems, does not amount to a perfectly articulated whole. Corollaries and implications of this basic outline developed throughout his writings, such as his monadology, his views on weight and gravitation, the use of mathematics, the relationship between human and cosmos, and the coincidence of the absolute maximum and the absolute minimum (taken over from Cusanus) will not be drawn into the analysis. All of these were taken up and developed further by Kirchoff.

The characters in the philosophically relevant second to fifth dialogues are Teofilo, who represents Bruno himself; Arelio Dicson, who largely supports Teofilo; Gervasio, who represents the common man; and Poliinnio, who represents the presumptuous but intellectually barren pedant. Bruno himself is referred to as

'the Nolan' (derived from Nola, his place of birth, near Naples). After an apologetic, introductory first dialogue, the book proceeds to develop the three main components announced in the title. In the second dialogue, the complex notion of *causa* (cause), roughly assimilated to the Aristotelian concepts of 'form' and 'soul', is explained. The third dialogue develops the notion of *principio* (principle), largely assimilating it to the concept of *materia* (matter) (Aquilecchia 1993: 254). The fourth deals with the relationships between form and matter. The fifth proceeds to consolidate the indissolubility of the two in the idea of *uno* (one). *De la causa, principio e uno* provides ample evidence of the wider context of the religious cosmology of Bruno. Without recourse to his other writings, the following emerges from the pages of this metaphysical vision of infinity put forward in the form of intensely personal, passionate assertions rather than carefully considered conclusions.

### Cause and Principle

Bruno carefully distinguishes the terms 'cause' and 'principle'. As for cause, he takes over the traditional Aristotelian distinctions of effective (*cause efficiente*), formal (*cause formale*) and final causes (*cause finale*). Whereas 'cause' to him connotes an ontological difference between two related things, 'principle' refers to a temporal sequence or a ranking in value, without the implication of ontological difference. Whereas a cause is involved with the production of something from the outside (*esteriormente*)<sup>5</sup>, a principle is intrinsically present in the constitution of what is produced, and remains in what is affected ('*quello che intrinsecamente concorre alla costituzione della cosa e rimane nell'effetto*') (II: 230 f). Not every cause is a principle, not every principle a cause. And there is no simple dichotomy between the two modes of affecting something. The efficient cause, for example, is partly intrinsic in and partly extrinsic to natural things (PE: 178). Matter is essentially a principle of production inherent in the natural world.

### Divinity

While Bruno does not exactly hide his contempt for the religious officials of his day, he is at pains in this treatise not to let this get out of hand. The distinction between the ways of philosophy and of theology that he would emphasize so strongly at his Venetian trial in 1592, is utilised in *De la causa, principio e uno* to clear a space for his own speculative thinking (IV: 299, 300, 309), which is presented not as absolute, but as useful and in accordance with nature. Admitting that his philosophical definition of divinity is not the same as that of the common people, he nevertheless maintains that it is not opposite or strange to it either, only clearer and more explicit (III: 288).

He speaks as a natural philosopher ('filosofo naturale'), restricting himself to the most important physical causes ('le cause fisiche sole')<sup>6</sup>, and deliberately suspending dealings with the first principle and cause ('primo principio e causa') - that is, God (II: 226). Knowledge of God belongs to a different order, for it cannot be deduced from knowledge of the dependent things of the universe (II: 226 f). Whereas theology may speak about God on the basis of revelation, the natural philosopher, says Bruno, keeps his distance from things lying outside the sphere of our thinking capacity ('quelle cose che son sopra la sfera della nostra intelligenza') (II: 228). Bruno, a learned theologian himself by training, restricts himself to the philosophical procedure. He seems to want to protect a certain autonomy of both spheres, the religious and the rational/scientific, without accepting the notion of a 'double truth' where both are accepted as true even if they conflict (Michel 1973: 63). He demonstrates great trust in the capacity of reason, yet recognises that it has its limitations. It is also necessary to distinguish between rational (including metaphysical) knowledge in the sense of reasoned argument and inspired flights of thought reaching up to heights inaccessible to reason. In *De la causa, principio e uno* at least there is a subtle balance between the two. Bruno's thinking seems to hover on the edge between natural knowledge at its loftiest and supernatural intuition. Ultimately, he seems to be led by intuitive vision, transcending the limits of logic and reason. From the point of view of rigorous consistency, with his boldness in saying what, by his own admission, cannot be said, he ties himself up in a contradiction. In his case the adage of *fides quaerens intellectum* can be applied; the *fides*, the visionary trust, however, is not the classical Christian one, but one inspired by other sources.

Notwithstanding his careful division of labour between the natural philosopher and the theologian, *De la causa, principio e uno* provides a bold testimony of Bruno's integration of religious thought with the scientific and mathematical thinking of his day. Soon after him, the trend of separating these two discourses, resulting in the one-dimensional positivism that would come to dominate modern, western culture, took over. Bruno was prepared to die for his cosmology of a physically infinite universe that was simultaneously religious and scientific. A few decades later Galileo, acknowledging (perhaps with a measure of cynicism) but not deploring a widening rift between religion and science, would not be prepared to do that.

As far as God is concerned, Bruno does not deny His existence. Yet he presents his thinking as essentially agnostic. The divine supernatural essence ('divina soprannaturale essenza') is too far removed from natural things to allow for any cognitive bridge from nature to supernatural divinity (II: 227). Of the divine substance ('divina sustanza') nothing can be known, because it is infinite and because it is far removed from its effects, which constitute the extreme limit of our discursive ability ('discorsiva facultade').<sup>7</sup> God can only be known as vestige, from behind, as a mirror, shadow, or puzzle (II: 227). Without saying it in

so many words, the structure of *De la causa, principio e uno* seems to suggest that those concepts fit the role of nature, co-eternal with, yet ontologically dependent on God.

In the first and highest principle (God), absolute potency and absolute actuality coincide. God, like the universe, is everything it can be.<sup>8</sup> Careful not to appear as a pantheist, Bruno presents God as the cause of nature, all things being ontologically distinct from Him ('le cose tutte son da lui distinte') (II: 230). However, he also refers to God as first principle (II: 229), thereby either using the term 'principle' inconsistently, or indeed allowing for an ontological continuity between nature and divinity. In view of the essentially Neoplatonic structure of Bruno's thinking, with its implication that the world emanates from the One, the second seems to be the most likely interpretation. In the descending order from the one, the universe manifests two secondary substances, one spiritual and one bodily: form and matter. Constant ('constantissimi') (II: 246) and eternal principles/substances (II: 245; III: 262), they are nevertheless of a lower order, and ultimately reducible to the one root.<sup>9</sup> At the end of the third dialogue, this is discussed in the context of his views on divinity. The concepts nature and divinity seem to blend. In this, Bruno clearly breaks with the view of Aristotle, for whom God was the prime mover, remaining totally outside the processes of nature, and sides with the religious naturalism of Plotinus with its continuity of divinity and nature. The most convincing interpretation seems to see Bruno's views as amounting to what would, in the nineteenth century, become known as pantheism. In Bruno's version, divinity coincides with nature, and transcends nature. Corollaries of his thinking in that matter, in a qualified sense, is divine (PE: 180; III: 262, 274; IV: 315), and the heavenly bodies (which Bruno considers to be perfect, living, divine organisms) (PE: 179) know, point to and preach the infinite excellence and majesty ('la infinita eccellenza e maestà') of divinity (II: 228 ff). God is explicated in the universe, but not completely.

Kirchhoff takes up Bruno's idea of heavenly bodies as living, divine organisms. Like human beings, they too are configurations of matter, soul and spirit ('Materie-Seele-Geist-Gestalt') (Kirchhoff 1999: 100) with a supra-human, cosmic consciousness ('Über-ichhaft') that encompasses and transcends human consciousness (ibid: 121, 311). These living beings - including earth (Kirchhoff 1998: 180 ff) - are bodies of God and are (as Bruno said) divine themselves (Kirchhoff 1999: 122, 223).

## The Universe

Like God, the universe cannot, according to Bruno, be understood perfectly (II: 228, 318). Yet of this Bruno is certain: the universe is one, infinite, immobile ('uno, infinito, immobile'), without end or limit ('infinibile e interminabile') (V:318 ff). The idea of the infinite universe consisting of an infinite plurality of

worlds<sup>10</sup>, made possible in principle by Copernicus' explosion of the earth-centric universe, is probably the strongest single driving notion in Bruno's philosophy.<sup>11</sup> Here he also picks up the impetus towards infinity in the thinking of Cusanus. When Teofilo (i.e. Bruno) speaks of the infinite universe, his ideas are borne on wings of impetuous eloquence. His obvious delight in the ancients is matched only by his joy in the promises of the new cosmology.

Following through on the Neoplatonic line of thinking, Bruno sees nature as a hierarchical order of dependence, a ladder of existence in which beings participate in various degrees (IV: 298). At the summit exists one principle of being ('uno principio di subsistenza'), one common essence ('una ragione commune') (IV: 298) unfolded, at the next level, in the two substances soul and matter, indissolubly joined in the one. His cosmogony does not presuppose creation from nothing, but emanation from God. The universe does not arise and is not destroyed, does not increase or diminish, is not affected by anything outside itself, and is not subject to any kind of mutation. As such, it is not measurable, is not contained in anything else and does not contain anything else, because there is not anything else than itself. There is nothing external to it. The notions 'smaller' or 'larger' do not pertain to it since in it all contradictions, all relative quantitative differences, coincide.<sup>12</sup> The same applies to qualitative opposites such as health and sickness, arising and destruction, hatred and love (V: 339).

The universe is neither matter nor form - or rather, it is form in such a way that it is not form, and matter in such a way that it is not matter ('P talmente materia che non P materia') (V: 319). Analogous to the relationship between divinity and nature, Bruno states that the universe is matter but is not reducible to matter (V: 318, 327). In the universe there is no difference between act ('l'atto') and potency ('la potenza'). It is all that it can be ('P tutto quello che pub essere') (V: 320). The infinite coincides with individual ('la infinita dimensione ... coincide con l'individuo') and infinite plurality coincides with unity ('la infinita moltitudine ... coincide con la unitB') (PE: 186). Change is not the attainment of another being, only of another mode of being ('non P mutazione che cerca altro essere, ma altro modo di essere') (V: 322). In it, being ('lo ente'), substance ('la sustanza') and essence ('l'essenzia') are one (V: 323). All things coincide in unity and identity ('concorrendo ogni cosa in unitB e identitB') (V: 323). Change and number are merely accidental, for there is only one substance, one divine, immortal being ('uno ente divino, immortale') (V: 334), even if it contains, as a necessary corollary of infinite and many worlds ('tutti questi mondi innumerabili') (V: 326). The universe is one and plural at the same time ('moltiunico') (PE: 185, also IV: 308; V: 318 ff).

Behind all changing appearances and differences of genera and species is the condition and circumstance of being - and this is one, infinite, unmoving, substrate, matter, life, soul, truth and goodness.<sup>13</sup> Striving towards the being and universal substance of things, we arrive at the indivisible one in which all things are



contained ('quell'uno individuo in cui tutto si comprende') (V: 333). Since there is no death as far as substance is concerned, fear of death is vain and childish (PE: 179; V: 324, with reference to Pythagoras). The unmoving, infinite universe as a whole is beautiful<sup>14</sup>, imperfect as the moving, empirical world may be in our experience. Evil - death, corruption, vices, defects, monstrosities - cannot be substantial but has the status of defect and impotence ('queste cose non sono atto e potenza, ma sono difetto e impotenza') (III: 282). Kirchoff (1999: 95 ff, 238 ff) has no hesitation in endorsing Bruno's view of an infinite universe full of life. The universe must be alive, he postulates, otherwise it would not have been able to produce life (ibid: 95, 306).<sup>15</sup>

### The Soul of the World and the Universal Intellect

For Bruno, the universe and everything in it, is imbued with soul. To Dicson's question whether all things are souled, Teofilo's reply is an unequivocal yes (II: 239). Form, soul, is totally in the totality and in any part of the totality (PE: 180: 'quest'anima pub esser tutta in tutto e qualsivoglia parte del tutto'). Continuing ancient Greek and Hellenistic views, he postulates the existence of a world-soul ('l'anima del mondo')<sup>16</sup>, which is homogeneous, identical with itself ('uno medesimo'), fills the totality ('empie il tutto'), illuminates the universe ('illumina l'universo') and guides nature to produce its species (II: 232). It stands in the same relationship to the production of natural things as our intellect to the production of rational things (II: 232). It's primary, principal, most inner, and most real and most own faculty is the universal intellect or intelligence ('l'intelletto universale').<sup>17</sup> Here Bruno changes the order of Plotinus who placed soul after mind (nous) in the emanation from the one.

Bruno refers to the world-soul as the 'inner artist' ('artefice interno'), because it forms and figures matter from within, just as the seed or root is responsible for the growth of the plant (II: 233). Repeating the pattern of thought that sees divinity as both part of and transcending nature, the soul is seen as both part of and exceeding the body of nature. Like the pilot in a ship, he is both part of the ship and a separate cause of it (II: 236). Although the world-soul is the formal constitutive principle of the universe and everything contained in it<sup>18</sup>, it is not bound to the body or the universe. Neither is it quite the same as divinity, even if it is said of both that they are present throughout the universe (II: 252). Form is not always accompanied by matter, matter is always accompanied by form. Of the two basic secondary substances, soul is the governing one ('al tutto signor della materia') (III: 264), contracting matter to particularity. Form is the active potency of everything that is ('la potenza attiva di tutto') (III: 262) imbued with the power of making ('potestB di fare') (III: 263). In the terms of Aristotelian philosophy, soul (with its universal intelligence) is the efficient cause; the forms (ideas) according to which things are formed are the equivalent of the formal

cause; the actualisation of all natural possibilities is the final cause. Yet Bruno's thinking is not without ambiguities, perhaps attributable to the literary genre he chose here, his rich and complex personality, and his involuntary attachment to inherited categories while attempting to explode such old vessels of thought. The exact relationships between the concepts world-soul, universal intellect, form, spirit and life, remain, I think, imperfectly clear. Following through on Bruno, Kirchhoff (1999: 95, 271 ff) speaks of a 'Weltseele' as the alpha and omega of his own entire argument. The earth, as one of the heavenly bodies, has a spirit of its own: a creative intelligence, a consciousness (ibid: 122), participating in the universal soul. He praises Bruno for achieving an ultimate conceptual spiritualising of the heavenly bodies (1999: 125).

### Matter

No less than at any time of human endeavour is physics today struggling to understand the nature of matter. Every advance in scientific explanation seems to deepen the mystery of this entity, seemingly inert, yet acknowledged to be interchangeable with energy. Perhaps Bruno's elevation of nature was his most revolutionary innovation in comparison to the preceding religio-metaphysical tradition. He is quick to dispel the views of Democritus and the Epicureans, once held by himself: that what is not body is nothing and that matter is the only substance of things, as well as the view of the Cyrenaics, Cynics and Stoics that forms are only accidental dimensions of matter (III:262)<sup>19</sup>. As may be expected, Bruno is in full agreement with Plotinus' view that matter is a common thing beyond the uniqueness and difference of species of being (IV: 300: 'P necessario che vi sia qualche cosa comune, oltre la propriet  e differenza di ciascuna di quelle'), and that there is a difference between matter of higher and of lower order. The first, he reports Plotinus to say, is simultaneously everything and does not change, because it is everything it can be, in eternity; the second, subject to differentiation and movement, is consecutively changed from one thing into another, in time (IV: 307). As far as Bruno is concerned, Aquilecchia (1993: 255 ff) refers to the first as 'materia prima', to the second as 'materia sensibile'. Avicenna made the error, according to Bruno, of calling matter 'God who is in everything' ('Dio che P in tutte le cose') (III: 274-275). On the other hand Averroes is praised for accepting that matter contains the forms in herself (Bruno refers to matter as a feminine category) and does not receive them from outside (IV: 306). And in his defence of matter against its accusers and detractors, Bruno cautiously and dangerously refers even to the heretic David of Dinant (who died some time after 1210)<sup>20</sup>, calling him 'not mad' by regarding matter to be 'an excellent and divine' thing ('come cosa eccellentissima e divina') (PE: 180), 'a divine being in things' ('uno esser divino nelle cose') (IV: 315). Bruno's position is fairly clear: matter is not divine in the sense that divinity is completely identified with, or

reduced to, matter; it is divine in the sense that it partakes in divinity, which embraces, and transcends, all of reality - including matter and its fellow substance, soul.

Matter, like soul, is an eternal substance and principle. Permanently, indissolubly, coexisting with soul (spirit, life, which is found in all things<sup>21</sup> and fills all of matter in various degrees<sup>22</sup>), matter is one and absolute, manifesting itself in various degrees and hidden under various species<sup>23</sup> as potency and substratum matter is the passive potency of all that is ('potenza passiva di tutto'), the power to be made ('potestB di esser fatto') (III: 262-263). Form and matter define one another.<sup>24</sup> Infused and impregnated by the 'intelletto universale' (II: 232 f), matter brings forth the forms. If form is cause rather than principle, matter is principle rather than cause: intrinsically part of the constitution of things. Yet there is no dualism between the two orders, but rather mutual interdependence. The formal cause, for example, is evoked from the bosom of matter by the efficient cause<sup>25</sup> bringing about what cannot be ascribed to mere chance. Matter underlies all things as a homogeneous something ('una medesima cosa') (III: 267), a kind of substratum out of which, with which and in which nature effects her operations.<sup>26</sup> This natural substrate is one (III: 265: 'uno P il soggetto della natura') and completely undifferentiated (III: 266: 'al tutto indifferente'). In itself it is not any of the particular things in the world such as stone, earth, human and so on, but a malleable substance continuing through all such changes and permutations. It is the foundation and basis of what is actual. The particular things drift on the surface of matter. It is not wholly unlike the material substratum (say, wood) underlying products produced by the artisan (say, table or door). Yet, there is an essential difference. The one, homogeneous, universal, natural substratum is not perceptible by the senses because it is completely formless (III: 265: 'al tutto informe')<sup>27</sup>, whereas the perceptible matter of art with its many substrates has been formed by nature.<sup>28</sup> Art works on the surface of things formed by nature, such as wood, iron, stone and wool. Unlike those substrates, primordial matter is not physical and has no specific qualities.<sup>29</sup> Imperceptible to the senses, it can only be known through reason (III: 266: 'con l'occhio della ragione').<sup>30</sup> Undifferentiated, it is nevertheless the possibility of numerical multiplication.<sup>31</sup> Without form, it remains susceptible to all forms.<sup>32</sup> Eternal, it is nevertheless the enabling substratum of all kinds of transmutation (IV: 302: 'soggetto de trasmutazioni de tutte sorti'). Without quality, it is nevertheless the enabling substrate of all opposites, without being the opposite of anything itself.<sup>33</sup> With his view of space-energy ('Raumenergie'), which is matter as well as soul, Kirchoff (1999: 278 ff) clearly moves in the direction pointed to by Bruno. Ultimately, Kirchoff views matter as being a manifestation of the most basic substance, space-energy (ibid 1999: 318).

To Bruno, natural forms are not received from outside, but emerge from within matter, as conceived in and born from her fertile bosom and collapse into

matter. Therefore nothing except matter (with form) can be seen as a constant principle. Substantial matter is equally indestructible as substantial form (soul)<sup>34</sup> - both are equally eternal (III: 270). Because of the eternal material substrate, nothing is ever annihilated it only loses its accidental, external material form. All natural forms are nothing else but so many determinations of matter. They come and go, but matter remains in eternity. The things emerge from matter, are born from matter, are divisions/contractions of matter, but are not additions to matter. Like the infinity of the universe, the eternal character of matter is a passionate concern of Bruno, a basic structural principle of his religious metaphysic. He allows Dicson to express his full acceptance of the Nolan's teaching in this regard:

We see that all natural forms emerge from matter and come out of matter afresh. Thus in reality nothing is constant, firm, eternal and worth to be considered a principle, except matter. (III: 273)

Continuing Bruno's line of thinking, Kirchoff (1999: 92 ff) speaks of *logos*, in the form of natural laws, inhering in matter itself. Very close to Bruno's notion of the passive potency, he argues (1999: 93) that matter is perhaps "strukturell nichts anderes als eben dieses, 'Auf-den-allgegenwärtigen-Logos-Reagieren'." Matter has a specific level and form of consciousness in a communicating universe (ibid: 95), even a form of freedom (ibid: 96). Far from being dead lumps of heavy matter or witches' cauldrons of merely burning matter, heavenly bodies are superior living beings (ibid: 126). Of this, our sun is a shining example. Hamstrung by their reductionist worldview, scientists investigate merely the surface, the physical light behind which the mystery of universal spiritual ('absolute') light is hidden (ibid: 237 ff, 246, 284 ff) and gravitation becomes an expression of the cosmic will to communion (ibid: 109 ff, 245 ff).

From *De la causa, principio e uno* it becomes abundantly clear that, to Bruno, despising women and despising matter, both part of inherited culture, are two sides of the same coin. Similarly, Kirchoff strives to overcome the old rejection of 'Frau-Natur-Erde-Leib, als eine grosser Zusammenhang' (Kirchoff 1999: 73).<sup>35</sup> That repressive denial was, he claims, ensconced in all religions of redemption (Kirchoff 1998: 164 ff; 1999: 72 ff) that claim to save humanity from the confines of nature and the dangers of body.

## Concluding Comments

At the end of an epoch, such as the modern one, and the tentative search for models that might guide humanity through the times ahead, Bruno offers insights deserving careful thought. He anticipated difficulties, some of them deriving

from centuries and millennia-old thought patterns that would beset the centuries following him. Not least among these, is the ecological crisis with its threat of transforming earth into a wasteland, and the continuing discrimination against women in certain quarters, feeding on, and into, a deeply disturbed relationship with matter, body and nature. His religious metaphysics developed perspectives that might shed new light on the questions puzzling contemporary thinkers. His ideas of a beautiful, friendly, living infinity, permeated by soul and intelligence, in which matter is spiritualised, nature loved and women respected, are worthy of consideration.

## Notes

- 1 Hawking announced his revised view in a paper read in Dublin in August 2004.
- 2 For example, see *The Flower Ornament Scripture* (Cleary 1993: 1489 f) where the heavenly tower 'as measureless as the sky, as vast as all of space, adorned with countless attributes' is described; and Watson's (1993) *passim* for the deliberately mind-blowing references to time-spans of immeasurable kalpas and space dimensions of innumerable worlds populated by countless multitudes of living beings of various orders of existence.
- 3 Solomon Ibn Gabirol (referred to in Latin as Avicbronius) was a Neoplatonic Spanish Jew, author of *Fons vitae*, which exerted great influence on the scholastic theology of the thirteenth century.
- 4 The Italian dialogues appeared in quick succession: in 1584 *La cena de le ceneri; De la causa, principio e uno; De l'infinito, universo e mondi*; and *Spaccio de la bestia trionfante*; and in 1585 *Cabala del cavallo pegaseo con l'aggiunta dell' Asino Cillenico*; and *De gli eroici furori*.
- 5 II: 229 ff: '... quella che concorre alla produzione delle cose esteriormente'. Roman numerals will refer to the relevant dialogue, page numbers to the edition of Aquilecchia, 1993. PE will refer to the prefatory epistle (proemiale epistola).
- 6 For Bruno's naturalistic theory of knowledge, see Paterson 1970: 50 ff.
- 7 II:227 f: 'Ecco dunque, che della divina sustanza ... non possiamo conoscer nulla.'
- 8 PE: 182: '...il supremo e divino P tutto quello che pub essere, e come l'universo P tutto quello che pub essere..
- 9 'Volete dunque che, benché descendendo per questa scala di natura, sia doppia sustanza, altra spirituale, altra corporale, che in somma l'una e l'altra se riduca ad uno essere e una radice', says Dicsen to Teofilo (III: 288).
- 10 II: 229, with reference to the *Timaeus* of Plato, where the universe is presented as a divine, living, souled being.
- 11 Aquilecchia 1993: 265 sums Bruno's cosmic vision up as 'universo infinito, senza centro, sostanzialmente omogeneo in ogni sua parte, vivificato dalla onnipresente anima universale'. Singer 1968: 50: 'The whole of Bruno's philosophy is based on his view of an infinite universe with an infinity of worlds.' For an explication of the

- implications of this view on the whole of his philosophy, see Paterson 1970.
- 12 PE: 186: '... gli contrarii veramento concorreno, sono da un principio e sono in veritB e sustanza uno.' This idea is developed extensively in V.
  - 13 V: 327: '...condizione e circostanza di ente ed essere; il quale P uno, infinito, immobile, soggetto, materia, vita, anima, vero e buono.'
  - 14 II: 238: 'E certo che cosa pub piú bella di questo universo presentarsi agli occhi della divinitB?'
  - 15 Kirchhoff 1999: 309: 'Die Hypothese des kosmischen All-Lebens - der universalen Weltseele - ist eine Denknwendigkeit; nur so kann die Existenz von Leben und Intelligenz erklárt werden.'
  - 16 II: 231. In particular he appeals to Pythagoras, Vergilius, Plato, the Magi, Orpheus, Empedocles and Plotinus.
  - 17 II: 231, 232: 'L'intelletto universale P l'intima, piú reale e propria facultB e parte potenziale de l'anima del mondo.'
  - 18 II: 244: 'L'anima, dunque, del mondo P il principio formale costitutivo de l'universo e di cib che in quello si contiene.'
  - 19 Among contemporary interpreters, Lindsay (1962) interpreted Bruno wrongly as materialist in the modern sense of the word, where matter is understood to refer to empirical matter.
  - 20 Born in Dinant (Belgium) or Dinan (Brittany), David taught in Paris as a scholastic philosopher, maintaining that there were three substances: corporeal (materia prima, not the matter present to the senses), spiritual and divine. These three ultimately coincide, implying the identification of divinity with matter. He was condemned for heresy in 1210, and his books were burnt, causing him to flee for his life. This effectively put an end to any influence he might have exerted.
  - 21 PE: 179: '... questo spirito persistente insieme con la materia ...essendo l'uno e l'altra indissolubili...'
  - 22 II: 244: '... il spirito, la anima, la vita si ritrova in tutte le cose e, secondo certi gradi, empic tutta la materia.'
  - 23 PE: 180: '... veramente sia una prima e assoluta ... con diversi gradi verifica ed ... ascosa sotto diverse specie cotali ...'
  - 24 PE: 180: '... come (la forma) definisce e termina la materia, come P definita e terminata da quella...'
  - 25 PE: 178: '... come la medesima (ie la causa formale, JSK) vien suscitata dall'efficiente dal grembo de la materia ...'
  - 26 III: 265: 'O dunque una specie di soggetto, del qual, col quale e nel quale la natura effettua la sua operazione, il suo lavoro.'
  - 27 III: 266: '... una cosa informe sola P materia della natura.'
  - 28 III: 265: 'Questa materia naturale non P cossi sensibile come la materia artificiale, perché la materia della natura non ha forma alcuna assolutamente'
  - 29 III: 267: '... questo soggetto della natura mi par che non possa esser corpo, né di certa qualitB.'

- 30 III: 268-9: '...questa materia di cose naturali non pub esser evidente se non con l'intelletto.'
- 31 II: 249: '... ogni moltiplicazione numerale dipende da la materia. '
- 32 IV: 306: '... ave in facultat tutte quelle dimensioni, cossí come ha potenza di ricevere tutte quelle forme.'
- 33 III: 269: '... quella terza cosa P soggetto dell'uno e l'altro contrario, e non P contraria ad alcuno.'
- 34 III: 270: '... nessuna cosa si anichila e perde l'essere, ecetto che la forma accidentale esteriore e materiale. Perb tanto la materia quanto la forma sostanziale di che si voglia cosa naturale, che P l'anima, sono indissolubili ed adnihilabili, perdendo l'essere al tutto e per tutto.'
- 35 Also Kirchhoff 1998: 314 ff.

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