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V.—GIORDANO BRUNO.

By THOMAS WHITTAKER.

THE interest excited by the personality of Giordano Bruno must always have prevented his name from being quite forgotten. But for two centuries after his death his writings were very little known. It was not until 1830 that the Italian works were collected, and no complete edition of the Latin works exists even now. Within the present century, however, not only have the events of Bruno's life formed the subject of more than one investigation, but his philosophy also has attracted new attention. This renewed interest in Bruno may perhaps be ascribed to the historical spirit of the age. But the study of his works, besides confirming the impression which his intellectual power and philosophical genius produced at first throughout Europe, and which has perpetuated itself in the history of philosophy, will in the end make it clear that his ideas have still a direct bearing on thought.

The investigations that have been mentioned above have added much to our knowledge of the life of Bruno. The materials for his biography were till lately, besides the letter of Scioppius written from Rome on the 17th of February 1600 (the day when Bruno was burnt in the Campo di Fiora), chiefly the occasional references to events of his life that are to be found in his works. All that could be known at the time was embodied by Bartholmèss in the first volume of his monograph on Bruno, published in 1846. Since then, documents have been discovered at Venice, containing the records of his examination by the Inquisition there, and have been published along with a new biography by Prof. Berti (1868). The same writer has published more recently (1880) copies with which he had been furnished of the Protocols of the Inquisition at Rome relating to the last year of Bruno's imprisonment. These were obtained by a research in the archives of the Vatican which the Roman revolution of 1848 made it possible to begin but not to finish. The principal facts that have been established by these and other documents are given by Prof. Sigwart in an essay included in his *Kleine Schriften* (1881).

The exact year of Bruno's birth was fixed for the first time by the Venetian documents. He was born in 1548 at

Nola in the kingdom of Naples, then under Spanish rule. His baptismal name was Filippo. The name of Giordano was assumed by him when he became a monk of the Dominican order at Naples. His noviciate began in 1562 or 1563. He received full orders in 1572. In 1576 he ceased to wear the Dominican habit. He had already been accused of heresy during his noviciate. He was now charged with holding heretical views on the Trinity. To avoid this charge he fled to Rome. At Rome the charge against him was to have been proceeded with; but he was informed of this, and escaped to Genoa. After residing for a short time in various cities of the north, he at length decided to leave Italy. He went first to Geneva, where there were many Italian exiles; but finding that to live there it would be necessary for him to profess Calvinism, he left Geneva after a residence of about two months. In 1577 or 1578 began his two years' residence at Toulouse. At the University of Toulouse he obtained the degree of doctor, and was appointed to an ordinary professorship of philosophy. In 1579 or 1580 he left Toulouse for Paris. There he published several Latin works, including the *De Umbris Idearum*, besides an Italian comedy, *Il Candelaio*. He refused an ordinary professorship which was offered him at the University of Paris, because in order to hold it he would have had to attend mass. An extraordinary professorship not having this obligation attached to it was conferred on him by Henry III., to whom he had dedicated the *De Umbris Idearum*. Towards the end of 1583 he set out from France with letters from Henry to his ambassador at the court of Queen Elizabeth, Michel de Castelnau, who received him into his house. In London he frequented the society of Sir Philip Sidney, Fulke Greville and other distinguished men. He lectured and held disputations at Oxford. During his residence in England he published the most important of his works, the Italian dialogues; of these the *Cena delle Ceneri*, *Della Causa* and *Dell' Infinito* are dedicated to Castelnau, the *Spaccio della Bestia trionfante* and the *Eroici Furori* to Sidney. In 1585 he returned to Paris, where he drew up theses against the Aristotelian physics, which were afterwards published at Wittenberg. These theses were defended by a disciple of his named Hennequin in a public disputation held on the 25th of May, 1586. Soon after this he left France for Germany. From August 1586 to May 1588 he resided at Wittenberg, lecturing at the University and teaching privately. In his valedictory address to the University he praised the tolerance that was practised there and

the courteous manner in which he had been treated. The next place he visited was Prague. In return for the dedication of one of his books he received a subsidy from the Emperor Rudolf II., afterwards the patron of Kepler. From Prague he went to Helmstädt. He composed there the three philosophical poems, *De triplici Minimo et Mensura, De Monade, Numero et Figura,* and *De Immenso et Innumerabilibus,* and dedicated them to Henry Julius, Duke of Brunswick. In order to get these books printed he went to Frankfort, where he remained from June 1590 to February 1591. At Frankfort he received letters from a young Venetian noble named Giovanni Mocenigo, asking him to visit him at his house in Venice and instruct him in the art of memory set forth in the *De Umbris Idearum* and other books devoted to the *Ars magna* of Raymond Lully. This was the cause of Bruno's return to Italy. Before his return he spent an interval at Zürich, during which he dictated his *Summa Terminorum metaphysicorum,* first printed, with a preface by Raphael Eglinus, in 1595. After his arrival in Italy in September or October 1591, he lived alternately at Venice and at Padua. In March 1592, he began to reside permanently in the house of Mocenigo. Two months later Mocenigo, constrained "by obligation of conscience and by order of his confessor," denounced him to the Inquisition as a teacher of impious doctrines. He was arrested and brought before the tribunal of the Inquisition at Venice. After his examination it was decided by the Grand Inquisitor San Severina, on the report of the tribunal, that he must be sent to Rome to be judged. The Venetian government was at first unwilling to grant his extradition, but at length yielded; and at the beginning of 1593 he was taken to Rome, where he remained in the prisons of the Inquisition till 1600. Nothing is known of the first six years of this imprisonment. But it is now known from the documents found in the Vatican that early in 1599, at a session of the Congregation held under the presidency of the Pope (Clement VIII.), it was decided that Bruno should be required to abjure eight heretical propositions selected from his writings and from the statements that had been submitted to the Inquisitors. Only one answer of Bruno's is recorded, and this is a declaration that he has seen no reason to change his opinions. On the 9th of February, 1600, he was condemned and delivered over to the secular power, with the usual request, "*ut quam clementissime et citra sanguinis effusionem puniretur*". When the sentence was read to him he answered, as Scioppius says, "threateningly"—"*Majori forsan cum timore sen-*

tentiam in me fertis quam ego accipiam". Eight days later he was burnt in the presence of a multitude of people who were assembled in Rome for the Jubilee.

More than one passage might be quoted from Bruno's works showing that he had anticipated for himself some such fate as this. When he was interrogated by the Venetian tribunal he admitted that his doctrines were indirectly opposed to the faith. His defence was that he was not an innovator in religion but in philosophy. He declared that he had never attached himself to any heretical sect; that, on the contrary, he preferred the religion of the Catholics to that of the Lutherans and Calvinists, because it laid more stress on good works; and that he was willing to submit to the Church in matters of theology. This last position was, as Berti says, a traditional position adopted by Bruno from the philosophers of the Middle Ages, who had tried to obtain toleration by means of it. In several passages of his works, and not merely in his answers to the Inquisitors, he says that in matters of faith he submits to the theologians. Sometimes this submission is merely ironical; it is in part, as has been said, the traditional means of defence of philosophers against persecution; but it is also expressive of Bruno's philosophy of religion, as will be seen. If it had been possible for Catholicism to grant philosophical freedom, he would have regarded it almost as the philosophers of antiquity regarded the religion of the State. It was philosophical freedom that he claimed, not freedom to found a new religious sect. But philosophical freedom was the kind of freedom that was least of all likely to be conceded by the Catholic reaction. Only an unqualified submission would have satisfied the Church, and this Bruno was incapable of making.

A few months before Bruno's extradition by the Venetian government, Galileo had begun to lecture at Padua. As is well known, Bruno accepted the Copernican astronomy as the basis of his cosmology before Galileo had made his discoveries with the telescope. Kepler, who lived in Prague fifteen years later than Bruno and was acquainted with some of his works, expressed admiration for him and regret that Galileo had not made some reference to his predecessor in the advocacy of the new astronomical doctrines. The fact that Bruno has a place in the history of astronomy as well as in the history of philosophy is expressive of the change that was taking place in the chief direction of the enthusiasm of discovery that characterised the Renaissance in Italy. This enthusiasm had been in great part trans-

ferred from the remains of classical antiquity to physical science. The representatives of classical learning were now frequently pedants of the type satirised by Bruno in his comedy *Il Candelaio*. The latter part of the sixteenth century was a period of literary decadence in Italy, not, as in England and France, a period of literary creation. But in England and France the scientific movement had scarcely begun. After he had seen the chief countries of Europe and their universities, Bruno expressed most admiration for the spirit of free intellectual activity that was already making itself felt in the universities of Germany. He praised Luther as the liberator of the human intellect, as a new Alcides greater than the first in that with the pen instead of the club he had subdued a more dangerous and more powerful Cerberus. He seems to have thought that pre-eminence in science as well as in learning had passed for a time from Italy to Germany.

But science and learning were regarded by Bruno as a means to an end. He has drawn the distinction between knowledge that is "instrumental" or "organic" and that which by itself leads to the perfection of the mind.[1] One reason why he so often attacked "the grammarians" was that they were the great representatives in his time of the pursuit of instrumental knowledge as an end in itself. They were at the same time the most prominent among the official defenders of the authority of Aristotle and of received opinions generally, and thus there was another ground of his hostility. But he saw that others besides the humanists might give themselves up to "laborious idleness". He ridiculed some of the researches of mathematicians, physicists and scholastic philosophers no less than those of the grammarians. And he admitted that the minute studies of the grammarians as well as those of logicians, physicists and mathematicians have a certain utility in providing exercises for those who will afterwards go on to the true end of study.

Notwithstanding the admiration which he so often expresses for Copernicus, Bruno was of opinion that he had had too much regard for "mathematical" and too little for "physical" considerations, that he had had in view facility of calculation rather than the nature of things. In his reformed astronomy Copernicus had retained the eighth sphere of the Ptolemaic system, the sphere which was supposed to carry round the fixed stars by its revolution. Bruno abolished the whole system of spheres and substituted for it the idea

[1] *Summa Terminorum metaphysicorum*, ed. Gfrörer, p. 440.

of an infinite space in which there are innumerable systems like the solar system, having the so-called fixed stars for their centres. But he still thought Copernicus inferior to no astronomer who had been before him. He saw in him the thinker who had set himself free from the opinions of the multitude, and had first made possible the more complete emancipation of the intellect that is the consequence of the substitution of the conception of an infinite for that of a finite universe. This new philosophical conception seemed to him to bring with it far greater good than the discovery of new continents. Those who have discovered new continents, he says, have found out the way to disturb the peace of nations, to multiply vices, to propagate tyrannies, while the new philosophy, on the other hand, liberates the mind from chimeras and shows it how to ascend to the stars.

Though Bruno satirised the humanists, he had himself much classical learning. His biographers have remarked the evidences of extensive reading that are to be found in his works. He had studied with special interest the records of the teachings of the pre-Socratic philosophers. He was of opinion that Pythagoras and other early speculators had had a truer view of the universe than that which had triumphed through the authority of Aristotle. He claimed to have revived this earlier and truer philosophy, of which the fragments had first been gathered together by Copernicus, although, for the reason that has been mentioned, Copernicus had not been able completely to convict "the vulgar philosophy" of falsehood.

Another branch of learning to which Bruno had given special attention was the study of mythology; not only the mythology of the Greeks but also that of the Egyptians and of the ancient nations of the East so far as knowledge of it was accessible to him. He had, as Bartholmèss points out, the idea of a science of comparative mythology.

The polemic of Bruno against Aristotle is chiefly directed against his cosmology. He acknowledges his pre-eminence in rhetoric, in politics, in logic, and often quotes his opinions with approval even in physics and in metaphysics; but he accuses him of misrepresenting the opinions of the earlier philosophers who were superior to him. At the same time, in opposing the established cosmological system, he brings against those who appeal to authority the argument that the moderns are really older than the ancients. He preferred Plato to Aristotle, and it is evident that he had been influenced by the Platonists of his own and the preceding age as well as by the Alexandrian Neo-Platonists. Yet he often

opposes the Platonic doctrines no less than those of the official Peripatetic philosophy.

A more directly metaphysical impulse was received by Bruno from Nicholas of Cusa than from any other modern thinker. Cusa has been described as the first German who, in the fifteenth century, attached himself to the study of Grecian antiquity. He was known as a reformer within the limits of Catholicism, took part in the Council of Basel, and was made a Cardinal. There are said to be suggestions of some of the new astronomical doctrines in his chief work, *De docta Ignorantia*. The most important idea that Bruno derived from him was that of "the coincidence of contraries". He thought that "the divine Cusanus," as he sometimes calls him, would have been still greater as a philosopher if he had not been restricted through his position in the Church; for Cusa had tried to reconcile his philosophical system with the dogmas of Catholicism.

Bruno ascribed some of the ideas of the Cardinal of Cusa to the influence of Raymond Lully (1235-1315), famous in tradition as an alchemist. Lully was the author of a system of logic by which the Mohammedans were to be converted to Christianity. His disciples maintained that his logical system was a means of discovering all truth. It is worthy of remark that he had not subordinated philosophy to theology; the doctrines of Catholic theology were to emerge as the result of a logical process. Bruno made additions to Lully's system, and during the whole period of his philosophical activity spent much time in writing expositions of it and in teaching it both publicly and privately. That which attracted him in it was probably the conception of the unity of knowledge, expressed in the doctrine that the mind may pass from any one idea to any other idea. But no relation except this very general one can be traced between the logical and mnemonic art of Lully and Bruno's own philosophical doctrines.

If the exposition of the mnemonic art in the *De Umbris Idearum* may be taken as an example, Bruno's treatment of the details of the system founded by him on that of Lully is very obscure. Other passages in his Latin works are affected with an obscurity similar to that of the "Lullian jargon". But this occasional obscurity does not affect the essential character of Bruno's writings. As in the *De Umbris Idearum*, the passages that are of philosophical interest are always perfectly clear. And in the obscure passages themselves there is nothing of the nature of imperfect articulation. It is difficult to believe that they were intended to be understood.

They are, as Berti calls them, "sibylline and unintelligible"; and as he goes on to say, they do not seem to be of any importance so far as their meaning can be conjectured.

The Italian works are free from passages of this kind, and on the whole they are of more interest and importance than the Latin works. The exposition is, besides, more systematic in the chief Italian dialogues than in the Latin poems on the same subjects. But there are many passages in the Latin works that are scarcely inferior to anything in the Italian works, and an account of Bruno's philosophy would be incomplete without reference to them.

Bruno's mode of exposition, both in the Latin and in the Italian works, is literary rather than scientific. He did not, indeed, make any attempt at that elegance of Latin style which was the chief object of the "Ciceronians". And in writing Italian, he thought it absurd to reject a word merely because it had not been used by any classical Italian author. But, on the other hand, he did not make for himself a rigid terminology. He says in the introduction to the earliest of his works that he does not refuse to make use of the terminology of any school, if only it is that by which he can best convey his idea;[1] and in his latest work he protests against the rigid method of interpreting philosophical terms practised by the "Grammarians".[2] Again, he uses quite freely, in order to convey his metaphysical ideas in an imaginative form, both the poetical and the philosophical conceptions he has met with in his reading. He takes pleasure in paradoxes, in ingenious combinations of ideas, so far as they help to bring out more clearly his own thought. He does not, like some philosophers, attempt to construct a system of which every detail shall be expressive of a conclusion that is logically connected with all the rest. But his essential ideas are none the less clear for this. And the vivid colouring that is given to his expositions by the use of illustrations from all sources only makes more evident the originality of his philosophy as a whole.

Bruno's essential originality is in philosophy in the strict sense of the term. He had, however, as has been seen, given special attention to the study of physical science. Some of the scientific speculations that are met with incidentally in his works are interesting as anticipations of modern ideas. He would probably not have laid much stress on them as parts of his contribution to thought; for

[1] *De Umbris Idearum*, ed. Tugini, pp. 20-3.

[2] *Summa Terminorum metaphysicorum*, Gfrörer, p. 455.

just as learning was to him material for the expression of his metaphysical ideas, so science was a means of arriving at a true conception of nature as a whole. But in order to illustrate his mode of thought in dealing with special scientific questions, his theory of the causes of the present distribution of life on the earth may be referred to.

He holds that the earth, under the influence of the light and heat of the sun, has the power of producing all forms of life from any part of itself, provided that the proper kinds of matter are present there. It is not necessary, he says, to suppose that all men are descended from the same ancestor; nor is each of the other races of animals descended from a common ancestor; all kinds of animals were produced in all parts of the earth. But in different places different kinds of animals have been destroyed and different kinds have remained; as in England, for example, certain kinds of wild animals have been destroyed through the cultivation of the country by men, and in other islands all men have perished through the predominance of the more powerful animals or through lack of food.[1]

The mode of thinking that has since given origin to the theory of natural selection is obviously expressing itself here under the limitations imposed by the state of the sciences of life in the sixteenth century. Bruno has speculated in the same spirit on the reason of the distances maintained by the different planetary systems from one another.[2] He has himself indicated the relation of this speculation to the ancient speculations as to the survival of certain combinations of atoms. He had a great admiration for Lucretius and imitated him in his later Latin works. He sometimes speaks of atoms as the "first bodies," the only solid parts of the world.

Atomic speculations, however, are subordinate in Bruno's philosophy. He himself, in the passage just referred to and in other places, distinguishes his doctrine from that of Democritus. He points out that while Democritus regarded life and mind as accidental products of certain combinations of atoms, he on the contrary regards them as equally eternal with atoms. He often quotes the following lines from Virgil as an expression of the doctrine he opposes to that of the Epicurean school:—

> Principio coelum ac terras composque liquentes,
> Lucentemque globum lunae, Titaniaque astra,
> Spiritus intus alit, totamque infusa per artus
> Mens agitat molem, et magno se corpore miscet.

[1] *De Immenso*, vii., c. 18.

[2] *De Immenso*, v., c. 3.

This doctrine is the philosophical basis of the theory of the origin of life described above. The power of the earth to produce all forms of life from all parts of itself is inferred from the presence of the soul of the world in the whole and in every part.

In Bruno's system God,—the absolute intellect,—is at once the beginning of things and the end to which they aspire according to the degree of their perfection. The divine intellect manifested in nature is "the soul of the world"; in the human mind it expresses itself as the desire to comprehend all things in relation to the unity from which they proceed. All particular things, so far as they are outside the divine intellect, are in truth vanity, nothingness; they have being only so far as they participate in the being of God.

It has been disputed whether Bruno's doctrine is theistic or pantheistic. Carrière, in his book on the philosophers of the Reformation, takes the view that there is a transition in Bruno's writings from pantheism to theism; that the Italian dialogues are more pantheistic, the later Latin works more theistic. E. B. Hartung, in an exposition of Bruno's ethical ideas and of their relation to his metaphysics, admits to a certain extent the truth of this view; but he points out that Bruno's definitions exclude the ideas of the personality of God and of his separateness from the world; since these ideas must be regarded as essential to theism, he concludes that Bruno's doctrine is, strictly speaking, pantheistic. Now both these ideas are just as much excluded from Bruno's later as from his earlier works. It might even be maintained that some definitions in the later works are more distinctly pantheistic than those of the earlier works.

The ground of Carrière's view seems to be this. In the dialogues *Della Causa* and *Dell' Infinito* the unity in which all things have their origin is described as manifesting itself in nature. The other aspect of this unity, its aspect as an end which the human intellect seeks to attain, is indicated and is placed in relation with the first. It is said, for example, in *Della Causa* that the process by which nature descends to the production of things and the process by which the intellect ascends to the knowledge of them are one and the same, that both the intellect and nature proceed from unity to unity through multiplicity. But this other side of Bruno's doctrine is more obvious in the later Latin works than in these particular dialogues. These dialogues, therefore, appear more "pantheistic," in one sense of the term, and the Latin poems more "theistic". But the view that has been

supposed to be characteristic of the earlier works is found in the later works also. Here, for example, is an expression of it from the *Summa Terminorum metaphysicorum*—"Natura aut est Deus ipse, aut divina virtus in rebus ipsis manifestata". It is alluded to in the poem *De Immenso* as a doctrine that has constantly been held by the author. And the dialogues *Degli eroici Furori*, which belong to the London and not to the Frankfort period, are devoted chiefly to the expression of the other side of Bruno's doctrine. In these dialogues the aspiration of the mind towards absolute unity is described. It is said that the contemplation of this unity is what the Peripatetics have in view when they say that the highest happiness of man consists in perfection by the speculative sciences. The opinion of Plotinus is quoted with approval to the effect that "the mind" (as distinguished from "the soul") "either is God or is in God". Thus the contrast between the earlier and the later works again disappears. The explanation of its having been supposed to exist is probably that the poems of the Frankfort period, because of the resemblance of their subject-matter to that of the two best-known Italian works, have been compared with these to the exclusion of the others. When they are compared with the Italian works generally, it is seen that the less systematic mode of exposition adopted in them has made it possible to include elements that do not receive full expression in *Della Causa* and *Dell' Infinito*, but which are more completely expressed in the *Eroici Furori* than anywhere else in Bruno's writings.

The two sides of Bruno's doctrine are brought into relation by means of the idea of perpetual transformation, of a descent of beings from unity on the one hand and an ascent towards it on the other. This idea is already present in the first of his philosophical works, *De Umbris Idearum* (1582). In this book, indeed, most of his characteristic ideas are put forward quite distinctly though without the development which they afterwards received.

The influence of Platonism is evident in the title—"Of the Shadows of Ideas". But Bruno distinguishes his own doctrine of transformation from the doctrine of emanation taught by the Neo-Platonists. He holds that as there is a continual passage from light to darkness by which the higher beings become lower, so also there is a continual passage in the opposite direction by which the lowest beings may gradually return to the highest state. Light is here the symbol of the region of ideas, of the absolute unity which alone truly exists. Darkness is merely the negation of light;

it is the symbol of non-existence. The "Shadows of Ideas" are things in nature and thoughts in the mind. They partake of the nature of light and of darkness. Any natural thing can change its form and (within certain limits), assume any other form. Similarly the intellect can pass from any particular thought to any other thought, if it has thoughts that can serve as means between the extremes. The end that the intellect ought to propose to itself is ascent to the region of Ideas, to the knowledge of the One as distinguished from the Many, of the permanent as distinguished from forms that change. The vision of the absolute unity must be described as a state, not as a process. Since the human mind is continually disturbed by sense and imagination, this state cannot last long, and is therefore spoken of in the past rather than in the present tense.

There is a very interesting passage in the *De Umbris Idearum* on the relation of Art to Nature.[1] It is declared that "dædal Nature is the fountain of all arts". For arts proceed from the mind of man; and Nature first gave birth to man with all his faculties. Unless we turn away from her, Nature herself will be present to us in all things. Nature (or the soul of the world, or fate, or necessity, or by whatever other name we may speak of the same power) proceeds from the imperfect to the perfect, and so also does Art, which Nature leads by the hand. Thus—the art of writing being taken as an illustration—men at first wrote on the bark of trees; then succeeded the age that wrote on stone; afterwards the papyrus was used, then parchment, then paper. As there was progress in the materials so also in the instruments of writing; first the knife was used, then the stylus, and so on continually.

This idea again appears in the last book of *De Immenso et Innumerabilibus*. Here a certain reaction from Platonism is perceptible. "Forms without matter," "light without body," are declared to be as absurd as other "separate substances," "abstract species," and "essences without being". The light that the Platonists feign outside things they are told to seek nowhere but in nature and the human mind. The reaction, however, is not from any position taken up by Bruno himself in his first work. It is merely from the use of the language of the Platonists, which expresses his doctrine inadequately so far as it gives the impression that he regards the absolute light, the region of Ideas, as entirely distinct from things. And when we come to the passages

[1] *De Umbris Idearum*, ed. Tugini, pp. 59-64.

containing his doctrine of the divinity of Nature, even the expressions are seen to be almost identical in the two books, though there is an interval of nine years between them.

But the central ideas of Bruno's metaphysics are best seen in the dialogues *Della Causa, Principio et Uno* ("Of the Cause, the Principle and the One"). "The universal intellect" is here declared to be the universal efficient cause. Many names have been given to this cause by philosophers in order to describe its mode of operation. The name that is to be preferred is that of an "internal artist"; for the universal efficient cause gives form to all things from within. The final cause which the universal intellect proposes to itself is the perfection of the world; that is, that all forms shall have actual existence in all parts of matter.

There are two principles of things, "form" and "matter". "Form" as one of the principles of things is to be distinguished from the accidental forms of things. The formal principle is in a manner identical with the efficient cause. For the soul of the world may be regarded now as cause and now as principle. In virtue of the formal principle not only the universe but all its parts are animated. Every portion of matter has its soul or "form". Not all concrete things are alive as such, but all things are alive as regards their substance. The portion of spirit that belongs to any corpuscle is capable of becoming the soul of any kind of animal by receiving the members appropriate to that kind of animal. All motion, all action, is due to the soul or form that is in the universe and in particular things. But there could be no action if there were not something capable of being acted upon, if corresponding to the active power of shaping there were not a passive power or possibility of being shaped in all ways. Hence a second principle or substance of things, "matter," must be assumed in addition to the principle or substance of "form". These two substances are equally eternal. No portion either of material or of spiritual substance can perish. Nothing is ever annihilated except the external and accidental forms of things.

In particular things, "act" and "possibility" do not coincide. No particular thing in the universe is all that it can be. But in the absolute first Principle of things, which is all that it can be, "act" and "possibility" are the same. Material and spiritual substance, "form" and "matter," the active and the passive principle, are therefore, with respect to the whole, identical.

Matter may be considered not only as "possibility" or

"potency" but also as "subject". In itself it has no extended form; it is not restricted to any one mode of being. Just as Art deals with various kinds of matter, each capable of receiving many shapes without change as to its composition, so Nature deals with a matter that is common to all things, both corporeal and incorporeal, both sensible and intelligible, and that remains under all changes the same in substance. This matter which is limited to no specific mode of being is identical with "pure act" and with the efficient cause. It has no particular figure or dimensions because it has them all implicitly. It is said to include all forms rather than to exclude them all, because it does not receive them as from without, but produces them from within. This truth was in part perceived by Aristotle, who makes Nature an internal and not an external principle. But instead of declaring that matter, being permanent, coincides with "act," he places actuality in his "forms" and "entelechies," which are accidental and changing, not truly substantial.

The Infinite, in which matter and form, act and possibility, coincide, contains in itself all being and all modes of being. Each particular thing contains the whole as regards its substances, but has not all modes of being. All evil and imperfection consists in this, that particular things, striving to attain the modes of being which they do not possess, lose one mode of being in order to assume another. In the Infinite all things are one; no quality is different from its opposite; a moment is not different from a century, unity from multitude, a solid from a mathematical point.

The doctrine of the coincidence of contraries, by the help of which the unity of all things is demonstrated, has great importance in Bruno's philosophy. It was suggested to him in the first place by the logical law that "the knowledge of opposites is the same". He quotes the opinion of Heraclitus to the effect that since the One, through the mutability of things, contains in itself all forms, contradictory propositions must be true of it. But he ascribes to Nicholas of Cusa the special mathematical development which he gives to this idea. The treatment of the circle may be taken as an example of his development of Cusa's doctrine. It is shown that in the circle a very small arc coincides with its chord and again that the circumference of an infinite circle coincides with a straight line. Hence, it is argued, contraries—in this case the straight line and the curve—are coincident in the maximum and the minimum. The maximum and the minimum themselves coincide in the infinite,

because where act and possibility are the same everything is that which it is capable of becoming. The point, for example, by motion can become a line, the line a superficies, and the superficies a solid, and all numbers can be produced out of unity; hence unity coincides with infinite number and the point with infinite magnitude. The point and unity were regarded by Pythagoras and Plato as symbols of the one Principle of things. Pythagoras explained the production of things from the one Principle by the analogy of the production of numbers from unity, Plato by the analogy of the production of all figures by the motion of a point. Both these methods may enable the mind to rise to the contemplation of the One; but that of Pythagoras is the best, because numbers have a higher degree of abstraction than figures.

Bruno develops this Pythagorean idea in the book *De Monade, Numero et Figura*. The Monad here symbolises the absolute unity which contains in itself all being, the identity of the maximum and the minimum. The Dyad is the symbol of difference and division, of the contradictions that are found in things. The final reconciliation of all contradictions, the return to unity, is symbolised by the Triad. Other meanings are assigned to the remaining numbers up to the Decad, and to corresponding geometrical figures; but the philosophical bearing of the chapters of this book that follow the fourth (on the Triad) is not very obvious.

In *Della Causa* the one principle manifested in the universe is distinguished from the universe regarded as a manifestation of that principle. The universe or nature[1] is called the shadow or simulacrum of the principle in which act and possibility coincide. There is not absolute coincidence of act and possibility in the universe; it is indeed all that it can be "explicitly"; but its principle is all that it can be "indifferently"; in the one principle there is no distinction of parts. This view of the universe in relation to its principle is explained in more detail in the dialogues *Dell' Infinito, Universo e Mondi*. Here the universe is called an attribute of God. The infinity of God is distinguished from the infinity of the universe. God is declared to be infinitely and totally in the whole world and in each part of it, while the infinity of the universe on the other hand is totally in the whole but not in each part. The eternal existence of an infinite universe and innumerable worlds is inferred from

[1] The word 'Nature' as used by Bruno sometimes means the universe as a manifestation of the divinity, sometimes the divinity manifesting itself in the universe.

the infinite power of God by means of the position already established that in God act and possibility coincide. If one attribute of God were finite, then, it is said, all would be finite. Those who maintain that the universe of matter and space is absolutely limited must be asked by what they suppose it to be limited. If they say by an immaterial world or principle, then it must be replied that a material and an immaterial world cannot form one continuum. Beyond the world in which we live nothing can exist but ethereal space and other worlds of similar composition. From the infinity of the universe of matter and space it follows that it can be acted upon by no cause external to itself.

In this way Bruno connects his metaphysics with the cosmology which he substitutes for that of the Peripatetics. At the same time he attacks the Aristotelian physics and the Ptolemaic astronomy on purely scientific grounds. The hypotheses of mathematicians have, he says, been put in place of reality. But nature ought to be a law to reason, not reason to nature. To those who appeal to the evidence of the senses in favour of the received opinions, he says that it is really from "an imbecility of the reason" that these opinions proceed, and not from the senses. The senses do not deceive; truth and falsehood are in propositions, not in the elements that sense supplies to reason. Sense itself, rightly considered, suggests the notion of an infinite universe; for we have experience of the illusory character of limits such as the visible horizon, and of the appearances of things at a distance. The hypothesis of an eighth sphere containing all the fixed stars is compared to the opinion of one who, being surrounded by trees, should think the seven nearest to be unequally and all the rest equally distant from him because they appear so. The repugnancy of the Peripatetic doctrine of the motion of the heavenly bodies in perfect circles to all that is observed of nature is frequently dwelt on. According to Bruno, though all natural processes are in a sense circular, nothing ever returns precisely to its former state. He ridicules the fancy of the Platonic year, regarding it as a kind of symbol of the opinion that mathematical exactness is observed by nature. He affirms that no mathematical circle exists in nature, any more than a mathematical point or straight line. Each of the planets has one motion which may be resolved into a number of approximately circular motions, but which is itself neither motion in a circle nor in any combination of circles. The heavenly bodies move freely in infinite space; they are not

carried round by spheres. And with the system of the planetary and other spheres the concentric arrangement of the four elements disappears also. In opposition to the Aristotelian doctrine, Bruno argues that the elements have no fixed order of position with respect to one another. They are, besides, never found in nature pure or unmixed. All substances in nature are mixed, and their composition is perpetually changing.

There is no fifth element or "quintessence" in Bruno's system. The stars and planets are not simple bodies, but are of mixed composition like the earth. All the bodies in the universe are made of the same elements or proximate principles as well as of the same primordial matter. In the sun and the stars fire predominates; in the earth and the planets (in which class the comets are included) water predominates. Bodies of the first class shine with their own light, bodies of the second class with a reflected light. But the element of fire is not absent from the earth. And water, being, as Thales taught,[1] the basis of all substances, the common element that binds together the parts of the elements of earth and water, cannot be absent from the sun. Heat and light, besides, are not sensible in themselves. Light, for example, is itself invisible; it is visible only by means of the body in which it inheres. What we call flame or fire is light or heat inherent in a moist body. Hence the sun is not without opacity and coldness as the earth is not without heat and light. The name of "ether" is given by Bruno not to the "quintessence" of which the stars were supposed to be made, but to space as distinguished from matter. He identifies the "immense ethereal space" of his cosmology with the "vacuum" of the Epicureans. Of this vacuum he says "God is the fulness". The "ether," or "heaven," or "space," as distinguished from the bodies it contains, is ingenerable, incorruptible and immovable. Being infinite it has properly no figure; but we may describe it, with Xenophanes, by the similitude of a sphere the centre of which is everywhere and the circumference nowhere.

Since every point of space may in turn be regarded as the centre, all motions may be said to be up or down, towards

[1] Bruno ascribes this doctrine not only to Thales, but also to "Moses and the Babylonians". Water, being an element in which coldness and darkness predominate, is, he argues, the representative of matter in the Mosaic and Babylonian cosmogonies; light or fire, of spirit. He himself often makes the sun the symbol of spirit or form or the active principle in nature; the earth, of matter or the passive principle.

the centre or towards the circumference, according to the point with respect to which they are considered. There is no difference of up and down, central and circumferential, with respect to the infinite universe. Moving bodies may be called light or heavy according as they are in motion to or from any particular point. But there is no absolute difference of "gravity" and "levity," as there is no absolute difference of central and circumferential positions. Bodies on the earth are said to have gravity with respect to the earth, because it is the system of which they are parts. The parts of the earth are related to the centre of the earth as the parts of an animal are related to the organic centre of that animal. If any part of the earth be removed to a great distance from the centre, it will not tend to return to its own place with a force proportional to its distance from that place (as the Peripatetics are obliged to maintain), any more than a part of an animal, being removed, will tend to return to its place. When it is at an indefinite distance from the system of which it has formed part, a body has no tendency to return to that system; for it is now neither light nor heavy with respect to it. Its motion will be determined by the general law that all bodies seek "the place of their preservation". When a body is in "its own place," that is, the place of its preservation, it is again neither light nor heavy.

Neither the material nor the spiritual substance of things seeks to preserve itself or fears to be destroyed, for substance is eternal. But all particular things, being subject to vicissitude, are moved by the desire to preserve themselves in their present state of being *(il desiderio di conservarsi nell' esser presente)*. Contraries are found together in nature, and the desire of self-preservation expresses itself in general as love of that which is similar and hate of that which is dissimilar. But things may seek that which is unlike them in kind, instead of fleeing from it, if it tends to their preservation. The motion of the earth, which is called circular to distinguish it from the rectilinear motion of the parts of the earth (though not one of the four motions of which the earth's total motion is composed is in a perfect circle), is determined by the need which the earth has of the light and heat of the sun. Not only is the earth the source of life to the animals on its surface; it is itself an animal. The sun and all planets and stars in the universe are also animals, which, like the earth, though divine and perhaps not destined to perish, are yet generable and corruptible. They differ from the animals on their surface in that they have all

the substance that is necessary for their preservation in themselves, and have not to seek it outside; but they resemble them in this, that they too preserve their life by retaining a certain constancy of form during all changes of the position of their parts. In order that they may remain alive it is necessary that their internal parts should by degrees become external and their external parts internal, that the sea should become land and the land sea; that in short, all parts of them should experience all changes of position.[1] Hence the hot and cold bodies of the universe have need of one another. The earth needs the alternations of light and darkness and of heat and cold that are caused by its diurnal and its annual revolutions, as well as those that take place during longer cycles, in order that all its parts may have all temperatures in turn and that the circulation of matter may be maintained. Thus self-preservation is the final cause of the motion, both rectilinear and circular, of all particular bodies in the universe.

All things are perfect with respect to the order of the universe, but not with respect to the desire of self-preservation that is inherent in each particular thing. Nothing in the universe is in itself either absolutely perfect or absolutely imperfect. God and the universe alone are perfect simply and absolutely. For finite things can only have different modes of being successively; God and the universe have all modes of being at the same time, or rather, without reference to time. As the infinity of God differs from that of the universe, so also the perfection. The perfection of God is in the whole and in every part; the perfection of the universe is in the whole but not in the parts of it taken separately. Things are said to be perfect, not simply and absolutely and in themselves, but in their kind, so far as they attain particular ends. For example, they may be said to be more or less perfect according to the degree of their success in attaining the end of self-preservation. Animals on the earth attain this end imperfectly; for the influx of matter fit to promote their preservation, which is at first greater than the efflux and afterwards becomes equal to it, is at length surpassed by it, and then death of the individual takes place. The heavenly bodies (among which the earth must be numbered) attain the end of self-preservation more perfectly than any other finite things.

The divine will is one with fate. But God acts by the

[1] Bruno finds suggestions of this theory of the "local motion" of the earth in Aristotle. See Italian Works, ed. Wagner, i., pp. 192-4.

necessity of his own nature, not by a necessity external to himself in the manner of things that are said to be subject to necessity. In God, therefore, necessity is one with freedom. God always acts in the best possible manner because he has perfect knowledge. If men knew all things perfectly they also would always act in the best way, and therefore all would act in the same way. But the wills of men are everywhere perturbed by passion and by the hidden causes of things (*affectu atque rerum latentia*). Hence they must often hesitate before choosing one of two opposite courses. For this reason the liberty of man must be classed among those things that are subject to uncertainty. It is not fitting that this kind of liberty should be ascribed to God.

In one place Bruno distinguishes between divine necessity or fate and the necessity of nature. Knowledge and will are declared to be identical both in God and in nature. The order that is in natural things is a kind of knowledge—the knowledge that each thing has of that which is similar and of that which is dissimilar. This knowledge is identical with the will to seek the one and to escape from the other. Now in nature different effects are never the effects of the same will or knowledge. But particular effects are not always produced when the will to produce them is present, because they may be prevented by the action of other things. Thus "the necessity of nature" is the necessity which we ascribe to particular laws of nature; "divine necessity" is the necessity by which the whole could not be other than it is.[1]

This doctrine of necessity, and that of the coincidence of will, power and act in God, by which it is connected with the doctrine of the infinity of the universe, are not to be taught to the multitude; for although they are not really dangerous to morals, yet they are sure to be misunderstood by the unlearned. This has been considered by those theologians who ascribe to God a free-will resembling that of man. They have seen that the multitude will never be able to reconcile merit and demerit in the choice of justice or injustice by men with necessity in God. But philosophers in teaching the doctrine of divine necessity do not wish to deny the merit of right actions or the moral freedom of man; and therefore "the not less learned than religious theologians" have always been willing to grant freedom of philosophising, and true philosophers for their part have always been favourable to religions.[2]

[1] *Summa Terminorum metaphysicorum*, Gfrörer, p. 512.

[2] *Dell' Infinito*, Wagner, ii., pp. 26-7.

In defending himself against those who bring arguments from the Bible against the Copernican astronomy, Bruno takes up the position that the Bible is a moral revelation, not a revelation of speculative truth. The object which a wise legislator has in view is, he says, to teach the multitude to choose the good and to avoid the evil. In aiming at this object he speaks in the manner of the vulgar about things that have nothing to do with practice, leaving the further consideration of them to "contemplative men". If he were to use terms understood only by himself and a few others, and to make great case of things that are indifferent to the ends for which laws are ordained, he would be thought to address himself not to the multitude but to "wise and generous spirits," to those who "without law do what they ought". But for these demonstration is required; faith suffices only for the many, for those who cannot act rightly without external law.

The sacred writers, then, must not serve for authorities when they speak as "presupposing in natural things the sense commonly received," "but rather when they speak indifferently," that is, without reference to practice. Regard must be had not only to the words of "divine men" speaking thus, but also "to the enthusiasms of the poets, who with superior light have spoken to us". In accordance with this principle Bruno finds in the *Book of Job* suggestions of some of his physical theories; he often quotes passages from *Ecclesiastes* in support of his doctrine of the permanence of substance; and in the Mosaic cosmogony (as in other cosmogonies) he finds the distinction of matter and form. The speculative parts of all religious systems are for him an exoteric philosophy. In one place he says that the veil which covered the face of Moses, and which signified, according to the Cabbalists, a veil that was over the law, was not for deception, but to prepare the eyes of men for the light, which would cause blindness if they were suddenly to pass into it from darkness.[1]

The essential end of all religions being practice, it follows that they are good in proportion as they encourage right action. This view is developed in the *Spaccio della Bestia trionfante*, a book which, as Bruno explains in the dedication, has for its chief object to lay the foundation of his moral philosophy. It is only in this book and in its sequel, the *Cabala del Cavallo pegaseo*, that he makes an attack which is direct and at the same time more than incidental on the

[1] *De Umbris Idearum*, ed. Tugini, pp. 33-4.

religion of his age; and this attack is on ethical grounds. The Christianity of the sixteenth century came very far short of his ideal of a religion that should always have ethical ends in view and should not discountenance intellectual liberty. Catholicism seemed to him to exalt credulity and ignorance to the rank of virtues and to discourage scientific curiosity as being in itself evil rather than good; and to Protestantism as a religious system he was less favourable than to Catholicism, for the doctrine of justification by faith seemed to him directly opposed to the true object of a religion. The gods, it is frequently said in the *Spaccio*, ought to be thought of as rewarding the good and punishing the bad actions of men, not for their own sakes, as if they could receive any benefit or injury from their worshippers, but for the sake of men. Laws have been ordained for the good of human society; and because some men do not see the fruit of their merits in this life, there have been placed before their eyes in another life rewards and punishments according to their works.

The *Spaccio della Bestia trionfante* ("Expulsion of the triumphant Beast") is an allegory of which the chief personages are the Greek gods and goddesses. The interlocutors in the dialogues are Saulino—the representative of the philosopher—Wisdom (Sofia), and Mercury. At the beginning of the first dialogue Wisdom relates to Saulino that the gods, finding themselves to have grown old, are offering up prayer to the Fates (although they know that Fate is inexorable), that they may either maintain their present state of being, or, if this is not permitted, then that they may enter into a better and not into a worse state. For Jove and the other gods are subject to change; it may be that they too have to pass the shores of Acheron. And they are afraid that the next great revolution of the world will be quite different from those that have gone before, and will not end in a mere change of dynasty. In order to preserve their existence, they have resolved to put away their vices, and, as a symbol of this change in themselves, to expel from heaven the records of the evil deeds of their youth, and to substitute the moral virtues for the monsters and deified human beings they had formerly placed in the constellations.

The "expulsion of the triumphant beast" from heaven and the assigning of a constellation to each virtue is effected by a council of the gods which is called by Jupiter. The mythological monsters and the heroes who had had places in the constellations along with them are disposed of in various ways. Hercules and Perseus are sent down to the

earth to slay or expel certain new monsters that trouble it. By these the spirit of superstition and religious persecution is signified; and this expulsion of monsters from the earth is a second meaning of the title of the allegory.

The virtues to which the gods assign the chief places in heaven are, in order of dignity, Truth, Providence or Prudence, Wisdom, Law, and Judgment. Truth is explained in the dialogues to be, in the highest sense, identical with the first Principle of things, with the One and with the Good. This first and highest Truth is superior to Jupiter. Besides the truth that is said to be "before things" as being their cause and principle, there is a truth that is "in things" and a truth that is "after things". The truth that is in things is that by participation in which they have being. The truth that is after things is the knowlege of them as it is in the human mind. Providence is "the companion of Truth," and is identical with liberty and with necessity. In its lower form it is called Prudence, and is the discursive knowledge which the mind has of the order of the universe. Wisdom, like Truth and Providence, has a higher and lower form. Its higher form is identical with Truth and with Providence. Its lower form is not truth itself but participates in truth, as the moon shines by the light of the sun. The first Wisdom is above all things, the second is "communicated by words, elaborated by the arts, polished by discussions, delineated by writing". Law is the daughter of Wisdom. It is by Law that states are maintained. No law is to be accepted that has not for its end to direct the actions of men in such a way that they may be useful to human society. Next to Law has been placed Judgment, into whose hands Jove has put the sword and the crown, for the punishment of the bad and the reward of the good. By the representative of this virtue services and injuries done to the commonwealth are to be judged greater than all others; internal sins are to be judged sins only so far as they are capable of having an external effect; repentance is to be approved but not to be esteemed equal to innocence.

That which is brought out most clearly in this distribution of the chief virtues is the importance that Bruno attaches to knowledge as an essential condition of right action. The distribution of the virtues that follow judgment has less purely philosophical interest; but the discussions of particular virtues help to show us what was Bruno's moral ideal. They display his admiration for the illustrious characters of Greece and Rome and his preference of the antique type of the hero to the mediæval type of the saint.

It has already been seen that Bruno regarded the supernatural sanction of morality as having some value for those whose actions must be regulated by external law. Since the fear of human justice is not sufficient to repress wrongdoers, it has been necessary, in his view, that the fear of divine justice should be added. The anthropomorphic gods may preserve their existence by doing reverence to the Truth that is above them and by making themselves the guardians of morality.

An episode of the *Spaccio* which has much interest in relation to Bruno's philosophy of religion is the discussion of Greek and Egyptian polytheism in the third dialogue. It is contended that both the Greeks and the Egyptians worshipped under many forms the one divinity that is latent in all things; the Egyptians chiefly under the forms of animals, the Greeks chiefly under the forms of men. Jupiter was once a king of Crete and a mortal man; the name of Jupiter was given to the divinity seen under a certain aspect, not because it was supposed that the mortal Jupiter was a god, but because it was held that the divinity was in Jupiter as in all things, and because in the extraordinary magnanimity or justice of Jupiter was seen the magnanimity or justice of the divinity. As the Greeks gave the names of men who had once lived on earth, and in whom more than in others certain divine qualities had been present, to particular aspects of the divinity, so the Egyptians gave the names of various animals to aspects of the same divinity manifested in its descent to the production of natural things. It is maintained by Isis in the assembly of the gods that the wisdom of the Egyptians consisted in knowledge of the processes by which the life that is manifested in the multiplicity of things returns to its source, and that this knowledge was embodied in the Egyptian religion. The Greek and Egyptian deities complain that the Jews and the Christians, having really fallen into the errors from which their own worshippers have been proved to be exempt, and being besides open to every accusation they can bring against others, yet reproach with idolatry those whose knowledge of the divinity was far greater than theirs. Isis declares that the followers of new religions have triumphed, not by their own merits, but because fate, in the vicissitudes of things, gives its time to darkness. The prophecy is ascribed to Hermes Trismegistus, that after the ancient religions have fallen there shall come a time when darkness shall be preferred to light and death to life, when those who attach themselves to "the religion of the mind" shall not be per-

mitted to live; but after these things have happened the world shall by some new revolution be restored to its ancient countenance.

In all this it is clear that Bruno regarded those religions from which the pantheistic view of nature had not disappeared as more favourable to the true philosophy than the monotheistic religions; but these passages must not be understood as a direct attack on Judaism or Christianity. To aim directly at the subversion of the popular religion because it was unfavourable to the true philosophy would have been inconsistent with his view that the end of all religions is properly ethical. The difference between the positions he takes up when he is considering religions from the point of view of ethics and when he is considering them from the point of view of his philosophy of nature is seen in this: that the goddess of Wisdom is represented as expecting the return of light in Europe after a long period of darkness, but as not having control over the vicissitudes by which the alternation of light and darkness is caused, while Judgment on the other hand is directly charged by the gods to destroy those forms of opinion that represent them as indifferent to the actions of men and caring only for their beliefs.

Some have found in the *Eroici Furori* an expression of Bruno's esoteric religion. This term, however, does not seem to be strictly applicable here; for Bruno always associates religion with ethics, and he distinguishes the "infinite aspiration" which is the subject of the *Eroici Furori* from "virtue" as defined by him in the same book.[1] His definition of virtue is founded on his theory of pleasure and pain. According to this theory all pleasure consists in a certain transition, and is pleasure only by contrast with a state of pain that has preceded it. Since in this transition, as in all motion, contraries coincide, since the end of one of two contrary states is the beginning of the other, there can be no pleasure without mixture of pain. At the highest point of pain or of pleasure the wise man always expects a reversal of his state. By considering the mutability of things he may at length arrive at indifference to all pleasures and pains. It is in this indifference that perfect virtue consists.[2] As the wise man is set free from subjection to

[1] Part i., Dialogue 2.

[2] Bruno does not deduce the particular virtues from his definition of the ideal virtue which is the result of the contemplation of philosophic truth. It has been shown by Hartung that Aristotle's doctrine of the mean has had more influence on the definitions of particular virtues in the *Spaccio* than any other general principle.

pleasures and pains by the knowledge that in the vicissitudes of things all states are at length reversed, so he is set free from subjection to the desire of self-preservation by the knowledge that nothing which is substantial can truly perish. This liberation from "the fear of fortune and death" is often described by Bruno as one of the chief results of his philosophy. It is conceived as an ethical state, since the disposition of the wise man with respect to mutable things is identified with virtue. At the same time it is not regarded as attainable by the mere practice of morality, but only by the contemplation of philosophic truth; and this is accessible only to the few.[1] To this outcome of Bruno's philosophy the name of an esoteric religion may properly be given. He himself contrasts it with the "vain fear and desperation" caused in "stupid and ignorant souls" by "foolish faith and blind credulity".[2]

In the *Eroici Furori* it is not the ethical effect of the contemplation of truth, but the pursuit of truth in itself that is described. The *eroico furore* is first of all the desire of absolute truth. It is said to be different from other *furori* not as a virtue from a defect, but as a defect that is in a more divine subject or that is present in a more divine manner. The *eroico furioso* resembles the ideally wise or virtuous man in having escaped from subjection to the desire of self-preservation and to common pleasures and pains; but he differs from him in this, that in the pursuit of his object he never attains the point of indifference. He has no sooner perceived truth under any one form than he perceives the limits of that form. Thus he is constantly impelled to go beyond that which he possesses; for the mind cannot rest satisfied with a knowledge that is limited and therefore imperfect. Since knowledge is impossible except under limits, he is always in motion between the extremes of pleasure and pain.

The *eroico furore* is sometimes described as an "intellectual love". It includes not only the desire of absolute truth, but also the desire of absolute beauty. This desire is excited by the beauty which is perceived in particular forms, and which is one of the manifestations of the soul of the world. But beauty, like truth, can only be perceived under limits beyond which the mind is impelled to pass; and therefore the pursuit of beauty also is a pursuit of which the end can never be attained.

[1] See for example the opening of the seventh book of *De Immenso*.

[2] *Spaccio della Bestia trionfante*, Wagner, ii., p. 241.

Sometimes, however, the end of the aspiration of the *eroico furioso* is spoken of as if its attainment were possible. It is then called "beatitude," and is said to consist in transformation or absorption into the object contemplated. Beatitude is also represented, in at least one place, as accompanying complete virtue. The doctrine of Epicurus is interpreted in the sense that virtue and the divine or heroic love are imperfect unless a feeling of happiness has been joined to them which no evil is able to take away.[1]

It is to be observed that the use of the word 'matter' in the dialogues that have just been considered differs from the use of the same word in *Della Causa*. Matter, in the *Eroici Furori*, instead of being described as that which produces from itself forms which it contains implicitly, is described in the manner of the Platonists, as that which impedes the ascent of the spirit. Bruno was not unconscious of this difference. He suggests the explanation of it himself in the dedication of the *Eroici Furori*, and in other places. It is a difference of expression that is explained by his doctrine of "the circle of ascent and descent". The forms that are emerging from "all-productive matter" seem to themselves to be impeded by it, because of the necessity they are under of passing through intermediate forms before reaching those that are highest. And the forms that are descending in the scale of being seem to themselves to be obeying an attraction towards "a less good," when they lose in the multiplicity of "the imagination" the unity of "the mind". If, on the other hand, the process of change is looked at as it were from the outside, it is seen that both the ascent and the descent of beings are determined by "the necessity of an internal law".

Not only does the idea of two kinds of change undergone in perpetual alternation by all forms of things supply the explanation of differences of expression as regards 'matter' that are met with in Bruno's works, but, as has been already indicated, the doctrines of the 'soul of the world' and of the absolute mind or intellect, which have been supposed by some to belong to different stages of his thought, are united by this idea. The theory of metempsychosis which is developed chiefly in the *Eroici Furori*, but which appears also in the *Spaccio* and in the *Cabala del Cavallo pegaseo*, is in part an expression of this idea in the form of a kind of philosophic myth. At the same time a concrete form is given to

[1] Wagner, ii., pp. 366-7.

other ideas by means of it, and in particular to the doctrine of the permanence of mind.

Bruno finds the elements of his theory of metempsychosis in the traditions as to the teachings of the Druids, the Chaldæans, and the Magians, in the opinions ascribed to Pythagoras, and in the doctrines of certain Jewish sects and of some of the Platonic schools. He represents the souls of men, of animals, and even of things commonly called lifeless, as alike in substance and differing only as to the kind of body they have last received. According to the nature of their deeds and aspirations when dwelling in one body will be the nature of their next embodiment. Each soul modifies the shape of the material substance of its own body as it becomes itself better or worse. Thus from the outward forms of men it may be known whether their next embodiment will be of a higher or of a lower kind. In the eternal metamorphoses of matter all souls receive all corporeal forms. No soul ever reaches a final state; all alternately approach and recede from the unity of the absolute intellect, become subject to matter and escape from it. This is figured in mythologies by the legends of gods that have assumed the shapes of beasts and at length by their innate nobility resumed their own forms. Those who aspire to the divinity by intellectual love may be described as changing themselves into gods. That metamorphosis is of all things and is eternal, and that all souls must return from the highest to the lowest and again from the lowest to the highest state, has been taught by all the great philosophers except Plotinus. All the great theologians, on the other hand, with the exception of Origen, have taught that metamorphosis is neither of all things nor eternal, but that those changes which are undergone by a certain number of souls have a period. The doctrine of the theologians is fit to be taught to those who, being now with difficulty restrained from evil, would be restrained with still more difficulty if they came to believe themselves subject to some lighter conditions of reward and punishment.[1] But that doctrine is to be esteemed true which is taught by "those who speak according to natural reason among the few, the good and the wise".

It is clear from many incidental expressions that, as Bartholmèss says, Bruno does not advance the theory of metempsychosis as a positive doctrine. Yet, as has been seen,

[1] Wagner, ii., p. 309. Bruno, however, does not always admit even the utility of the theological dogma in question here. See *De Immenso*, vii., c. 11.

he conveys under the imaginative form of this theory some of the principal ideas of his philosophy. From his mode of combining the idea of metempsychosis with that of metamorphosis it may be inferred that his doctrine of "the immortality of the soul" is not a doctrine of personal immortality. This indeed is evident from the frequency with which he speaks of the souls as drinking of Lethe before passing into a new state of existence. Of this idea as well as of his doctrine of "the soul of the world" he finds an expression in Virgil; and he finds it in the passage from which he has taken the lines that have already been quoted, —in the speech of Anchises which, according to tradition, contains an account of the doctrines of Pythagoras.[1] Virgil in the latter part of this passage makes Anchises tell how the souls that have attained Elysium become willing to enter into new bodies.

> Has omnes, ubi mille rotam volvere per annos,
> Lethaeum ad fluvium Deus evocat agmine magno;
> Scilicet immemores, supera ut convexa revisant,
> Rursus et incipiant in corpora velle reverti.

Or as Bruno expresses it in the language of his own philosophy, the transmigrating souls, by the compassion of Fate, are caused to drink of the waters of Lethe before receiving new forms, in order that they may suffer as little pain as possible from the inevitable contradiction of their desire to maintain their states, and that after every change of embodiment they may remain equally desirous of preserving themselves in their new state of being.

In the foregoing article the aim has been to explain the ideas of Bruno in their relations to one another. Before continuing the study by any attempt at a critical estimate, it seems well to wait for the appearance of the book on "The Life and Works of Giordano Bruno" which has been for some time announced by Messrs. Trübner.

[1] *Æneid*, vi., 724-751.—Bruno refers to Virgil as the "Pythagorean poet".