

## SOME ANCIENT COSMOGONIES AND EVOLUTION.

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Far too often the academician, like the layman, classes the rich mythology of the ancients with the modern animal stories and the fairy tales of children. Thus he dismisses the strifes, woes and victories of ancient deities as being outlandish tales of anthropomorphic gods whom no one, in these days of enlightenment, propitiates or entreats, and whose memory would be buried in eternal oblivion were it not for musty books and inquiring scholars. Why consider ancient mythology? Is not much of it fragmentary, and even that which we have often inconsistent? Have not numerous myths been vitiated and frequently modernized with each copying? All this, we admit, is very true. We are often perplexed! However, there is one error in the above view; there is one thought which the critic has not grasped. A myth is more than a tale that is told, for in it, with its poetic language and personified and deified forces of nature, rests the thought—the profound thought—of the ancients. These legends are not the epics of an individual, but the poetry and philosophy of a race.

We point with pride to the progress we have made in our control over nature—to the speed with which we travel, the ease with which we communicate with those at a great distance and the quality and quantity of the goods which we are able to produce. And yet, we forget the momentous discovery which primitive man made when he discovered the principle of the wheel—the cog which plays so large a part in our mechanized civilization. Truly this principle—the idea of a primitive man—is more fundamental to civilized life today than it ever has been. Have we improved much upon the principle of the wheel, or have we merely applied it?

Just as we have noted the importance of a primitive (but momentous) discovery for our present-day civilization, so also may we find in the realm of thought certain ideas which have been held through the ages as more or less fundamental. This is most certainly true with regard to ideas of origin and development, as numerous writers, including the present writer,<sup>1</sup> have

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<sup>1</sup>Dudycha, G. J. "What Is Evolution?" *Scientific Monthly*, 29: 317-332, October, 1929.

pointed out. Unfortunately, however, we have too long neglected the more ancient ideas of origin and have begun with the Greeks, as though they were the first to speculate concerning the profound problem of how-did-things-come-to-be-what-they-are. In the case of the ancient Egyptians and Babylonians we found, when we divested their ancient legends and myths of their theological implications and deity names, that they held as fundamental certain ideas which were strikingly like, and which antedated, those of the Greeks.<sup>2</sup> In the present article, we shall try to search out diligently the ideas of origin as found among the ancient Indians and Iranians, and see if their ideas bear any likeness to the ideas of the Greeks or to more modern ideas of development and evolution with which we are familiar.

When we turn to the ancient sources of the Indian and Iranian ideas of origin we encounter some difficulties. We can not ascribe the various books and hymns to particular writers, as we can in the case of the Greeks. Nor can we ascribe a definite date to these writings.

To discover the ancient Indian ideas of origin, we turn to the ancient or Vedic period of their literature. To this period belong the four Vedas of which the most ancient, the *Rigveda*, is the most important. *Rigveda*, which may be translated as Verse-Wisdom, is sometimes characterized as the "book of psalms," for it consists chiefly of lyrics in praise of the various gods. This ancient collection of Verse-Wisdom of India consists of a little over one thousand hymns which are grouped in ten books of varying length. The tenth book, which contains the material in which we are primarily interested, appears quite definitely to have been written at a later date than that of the writing of the first nine. Since the whole of this collection of Verse-Wisdom was not written at one time but over a longer or shorter period, a particular date can not be ascribed to the composition of the hymns. Nor is it easy to place these hymns roughly for they were perpetuated orally through numerous generations. Scholars who have studied the literature of the Vedic period most carefully are not in complete agreement as to the approximate date of the composition of the hymns of the *Rigveda*. Hopkins in discussing the approximate date of the composition of the Verse-Wisdom of India says: "One

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<sup>2</sup>Dudycha, G. J. "Ideas of Origin Among the Ancient Egyptians and Babylonians," *Scientific Monthly*, 32: 263-269, March, 1931.

thousand B. C. is, then, not the lowest, but the highest limit that we can reasonably set to the Rig Veda, and 800 B. C. is probably nearer the mark, as far as the bulk of the Rig Veda is concerned."<sup>3</sup> Another scholar, Macdonell, agrees with Hopkins.

Professor Das, however, another authority who has studied the subject very carefully, presents a different theory as to the period to which the *Rigveda* belongs. He has gone to the hymns themselves and has compared various statements found there, with astronomical, geological and cultural facts which have been calculated to belong to a very early period of cultural history. On the basis of his studies, he concludes: "Taking the lower estimate as correct, it would not be unreasonable to guess that some of the Rigvedic hymns were as old as 25,000 years."<sup>4</sup> The arguments which Das gives in support of his theory seem sound and quite convincing. If he is correct in his interpretations and comparisons, then the ideas of origin found in the sacred literature of ancient India antedate those of the Greeks and even those of the ancient Egyptians and Babylonians by many millenia.<sup>5</sup> Let us turn to these primeval ideas and discover how the ancient Indians viewed the problem of how-did-things-come-to-be-what-they-are.

First we shall consider the more mythological notions, and later those which are more definitely philosophical. According to ancient Vedic ideas, the world was divided into three parts—earth, atmosphere and sky or heaven—each of which was represented by a god. When the universe is referred to, however, *Dyavaparthivi* ("Sky and Earth") is the name which is used. Sometimes one god, and at other times all the gods are said to have created heaven and earth and all things. And again, heaven and earth are said to be the parents of the gods. This paradox, that the gods created heaven and earth which are their parents, apparently was not confusing to the ancients, but merely enhanced for them the mystery of creation. This paradox is not merely peculiar to the earlier mythological notions, but is also found incorporated in the later philosophical ideas. This self-contradiction they avoided in part, however, by declaring *Aditi* as the mother of the gods—the Primordial

<sup>3</sup>Hopkins, E. W. "India Old and New," p. 30, New York, 1901.

<sup>4</sup>Das, A. C. "Rigvedic Culture," p. 35, Calcutta and Madras, 1925.

<sup>5</sup>See Dudycha, G. J., *ibid.*

Force of Nature. Thus we read in the seventy-second hymn of the tenth book of the *Rigveda*:

THE HYMN TO BRAHMANASPATI, X, 72.

The genesis of the bright gods  
We will declare with wonder deep,  
Uttered in hymns for him who shall  
In coming generations hear.

Brahmanaspati like a smith  
Together forged whatever is;  
When gods existed not as yet,  
Then being from non-being rose.

In times when gods existed not,  
Then being from non-being rose,  
The spaces of the world were born,  
From her they call Uttanapad.

The earth was from Uttanapad  
Born, and the spaces from the earth;  
From Aditi arose Daksha,  
Again from Daksha Aditi.

Born first of all is Aditi,  
Who, Daksha, thine own daughter is;  
After her were the gods produced,  
The blessed and immortal ones.

When ye stood in the swelling flood,  
Ye gods, who well established are;  
Then as from dancers from you whirled  
Upward in mighty clouds the dust.

When ye like mighty athletes caused  
The worlds, ye gods, to emanate,  
Then lifted ye the sun on high,  
That in the ocean hidden lay.

Eight valiant sons had Aditi,  
Who from her body were produced.  
With seven she went among the gods,  
While she the egg-born cast away.

With seven sons went Aditi  
Up to the ancient race divine;  
The egg-born she surrendered to  
The sway of birth and now of death.<sup>6</sup>

<sup>6</sup>Taken from Griswold, H. DeW., "Brahman: A Study in the History of Indian Philosophy," pp. 27-28, New York, 1900.

Here we find a number of significant ideas expressed. In the second stanza, we find the idea of design in the universe, for we are told that even before the gods existed "Brahmanaspati like a smith together forged whatever is." Before the gods existed, who preceded the rest of creation, all creation was determined. Also we note that non-being and being are not held as in opposition to each other, but the former is considered as the source or root of the latter—from non-being comes being. And in this process we have a process of becoming for the "spaces of the world" were born. This process of becoming is suggested elsewhere, as we shall see. In the fourth stanza we have a paradox—"from Aditi arose Daksha, again from Daksha Aditi"—but in the fifth it is brushed aside by definitely stating that Aditi was "born first of all." Aditi means "Unbinding" or "Boundlessness." This is especially significant for it immediately suggests to us Anaximander's idea of "the boundless" as the source of all things. Again we find this same idea among the Egyptians, for Neb-er-tcher was believed to be an almighty and invisible power which filled all space—an indefinable, boundless something from which all things issue. Thus Aditi comes to be merely the Indian label for an idea which we find in the thought of various peoples of different ages and different lands.

In the sixth and seventh stanzas, we find two significant ideas expressed. First, the idea of the primacy of water, "the swelling flood," which was before the gods were established and from which they came. This idea, a most common idea, we have encountered elsewhere. It suggests Nu, the watery abyss of the Egyptians, and the ancient Sumerian myth which holds, "Then we created the gods in the midst of their waters." It suggests Thales, the Ionian, Aristotle, the Peripatetic, as well as the modern biologist. Whether 3,000 or 25,000 years old, this is truly an ancient idea. A second idea which we find here is that of activity—a creative force. "Then as from dancers from you whirled upward in mighty clouds of dust," the things created, and even the sun which "in the ocean hidden lay" was lifted up on high. There was activity, a creative force, in the primal mass from which all things have their being. Is this a new idea to us? We can hardly say that it is. The reference to Aditi as the egg-born, found in the last stanza, we shall refer to later.

In another hymn, Rigveda X, 82, we find the idea that the

whole of creation evolves out of the creator himself—first the gods and then all animate and inanimate things which are produced by the creative force with the assistance of the gods. Besides the idea of the primal watery mass, which existed even before the creator was born, which we have noted in other Vedic hymns, we have here another idea which we shall observe again in another connection, namely, that of the “embryo in which all the gods were aggregated.” In the beginning, in the primitive embryo were all the gods contained in potential form and hence the whole of creation. Hence things come to be what they are by some process of unfolding, of making manifest that which was potential, and all according to some design which we forged “when gods existed not.” This idea may rightfully be labeled “evolution.” In another hymn (Rigveda X, 121) we encounter essentially the same idea. Here is described a “Golden Germ” as creator of heaven and earth, of the waters and all that lives.

What time the mighty waters came, containing the universal germ,  
 producing Agni,  
 Thence sprang the gods' one spirit into being. What god shall we  
 adore with our oblation?  
 He in his might surveyed the floods, containing productive force and  
 generating Worship.  
 He is the god of gods, and none beside him. What god shall we adore  
 with our oblation?  
 Ne'er may he harm us who is earth's begetter, nor he whose laws are  
 sure, the heaven's creator,  
 He who brought forth the great and lucid waters. What god shall we  
 adore with our oblation?<sup>7</sup>

In the preceding Vedic hymns which we have considered, we noted that the ideas of origin are set forth, by and large, in terms of the gods and sacrifices—mythology. In the last hymn which we shall consider, Rigveda X, 129, the famous philosophical hymn—the Hymn of Creation—we shall note that mythology has passed into philosophical speculation. This famous hymn, which contains some passages that are still difficult to render, embraces the essential mythological notions which we have been considering, but sets them forth in a more abstract and philosophical manner. Macdonell presents the following rendering:

<sup>7</sup>Gray (Editor), “The Mythology of All Races,” Vol. VI, Keith, “Indian,” p. 51, Boston, 1917.

## HYMN OF CREATION, X, 129.

Non-being then existed not nor being:  
 There was no air, nor sky that is beyond it.  
 What was concealed? Wherein? In whose protection?  
 And was there deep unfathomable water?

Death then existed not nor life immortal;  
 Of neither night nor day was any token.  
 By its inherent force the One breathed windless:  
 No other thing than that beyond existed.

Darkness there was at first by darkness hidden;  
 Without distinctive marks, this all was covered,  
 That which, becoming, by the void was covered,  
 That One by force of heat came into being.

Desire entered the One in the beginning;  
 It was the earliest seed, of thought the product.  
 The sages searching in their hearts with wisdom,  
 Found out the bond of being in non-being.

Their ray extended light across the darkness:  
 But was the One above or was it under?  
 Creative force was there, and fertile power:  
 Below was energy, above was impulse.

Who knows for certain? Who shall here declare it?  
 Whence was it born, and whence came this creation?  
 The gods were born after this world's creation:  
 Then who can know from whence it has arisen?

None knoweth whence creation has arisen;  
 And whether he has or has not produced it:  
 He who surveys it in the highest heaven,  
 He only knows, or haply he may know not.<sup>8</sup>

This hymn, unlike some that we have considered, does not begin with a god nor even a creator, but begins by emphasizing the idea that before creation began nothing existed, not even non-being—"non-being then existed not nor being"—save "That One" who "breathed breathless then in self-existence" and "other than it of any kind, there was not." Let us note well that this source-of-all-things, in this hymn, is not labeled as a god, but is merely referred to as the "One" or "That One"—the "It" which has no beginning. The source of creation, according to this Vedic hymn, is impersonal. As we read on, we find that all was darkness, and by darkness covered; all was in a watery chaos. In this void, however, something

<sup>8</sup>Macdonell, A. A. "Hymns from the Rigveda," pp. 19-20.

was becoming; That One by his own generative force came into being—the potential became actual. Another rendering of these lines is: "A germ lay hidden in its secret casing, which by the might of heat was born as That One." Here again we find the same cosmogonic notion which we encountered as "embryo" in Rigveda X, 82, and as the "Golden Germ" in Rigveda X, 121. Is it not significant that these ancient Indians held this notion of the potentiality of all things in a primordial seed or germ from which all things come by a process of becoming? Also let us remember that this notion is not peculiar to Vedic cosmogony; we have encountered this idea before. The ancient Egyptians believed that in Nu, the great watery abyss, all things were in a "state of helpless inertness" from which they were freed by becoming actual. For Augustine, also, all things were potential in an original germ or seed from which all things come. It is this potentiality of forms in the primordial mass which seems to be common to all of these concepts.

In the beginning the One had desire, the product of thought, which was the first seed and the bond of non-being and being. Thus ideas preceded creation and brought being from non-being. Also "creative force was there, and fertile power" which worked itself out into the actual. The hymn ends emphasizing the unity of the creative force, but also with the question: Who knows for certain whence came this creation?

Now that we have an idea of the ancient Vedic ideas of Origin, let us turn to the ancient Iranians and survey their cosmogonic ideas.

For a knowledge of the ancient Iranian ideas of origin, we turn to the *Zend-Avesta*, the sacred books of the Parsis, which is really a collection of fragments of varying antiquity. Of these sacred books, the first part, often called the Avesta proper, contains the Vendidad, which is a compilation of religious lore and mythological tales; the Visparad, which is a collection of litanies for the sacrifice, and the Yasna which is a collection of litanies and also includes the five hymns or Gathas. Just as we have found, when we considered the Indian Vedas, that scholars are not agreed as to the date of the Vedic hymns, so also in the case of the *Zend-Avesta*, scholars differ as to what dates are to be ascribed to the sacred books of Parsis.

Dr. Haug assigns a not much later date than 1200 B. C. to the Gathas, and fixes that of the much larger part of the



Vendidad at 900 or 1000 B. C. Pike, however, thinks "that the Gathas are much older, even, than that, and perhaps older than the Rig Veda." He says:

Caus Plinius the Second, tells us, in the Thirtieth Book of his Natural History, that Eudoxus said that Zarathustra lived 6,000 years before Plato (who was born 429 years before Christ); and that so it is asserted also by Aristoteles. Hermippus, Pliny informs us, who made a diligent study of the works of Zarathustra, explaining an immense number of verses, stated that he lived 5,000 years before the Trojan War (which is supposed to have taken place about 1,190 years before Christ).<sup>9</sup>

In the *Sacred Books and Early Literatures of the East*, however, the date for the Gathas is placed about 2000 to 600 B. C., and that for the Vendidad at 600 to 400 B. C. If Pike is right, then the *Zend-Avesta* is a source of ancient ideas which date back to around 6000 B. C., and thus are around 8000 years old. Thus we are about to examine some ancient ideas of origin, some of which may antedate those of the *Rigveda*, which together with the Vedic notions were derived from still more ancient Aryan ideas.

The Iranian account of the creation is found in the first Fargard of the Vendidad. In this account, we find an opposition between Ahura Mazda, also called Ormazd, the creator of the good, and Angra Mainyu, also called Ahriman, the creator of that which is evil. Ormazd was conceived as living in a region of infinite light, and Ahriman as living in an abyss of endless darkness. When Ahriman came from the abyss and beheld the light of Ormazd, there was a conflict between the two. As Ormazd created excellent lands, Ahriman tried to despoil his work by bringing into being various plagues.

We find in the *Zend-Avesta* significant ideas which throw much light upon the ancient Iranian ideas of origin. In one place we are told that after Ahura Mazda had created his creatures which were to remain "three thousand years in a spiritual state, so that they were unthinking and unmoving, with intangible bodies" then Angra Mainyu came from his abyss into the light of Ormazd and a conflict continued between them for three periods of three thousand years each, or a total of nine thousand years. Thus Zoroastrian cosmogony really covers a period of twelve thousand years. During the first period of conflict, Ormazd was dominant; during the second

<sup>9</sup>Pike, A. "Lectures of the Arya," p. 8, Louisville, 1930.

period, a period of bitter conflict, material things were created in the order: heaven (including heavenly bodies), water, earth, plants, animals and man; during the third period, the evil spirit spread disease and corruption in the good creation, but finally Ahriman and his hosts were driven back to hell. This dualism and conflict is characteristic of all Zoroastrian beliefs.

It has been pointed out that the spiritual creations of the first period of three thousand years—the period of the creation of the spiritual creatures of Ormazd—are remarkably like the “Ideas” of Plato. Again we may note another parallel. The conflict between Ormazd and Ahriman suggests the doctrine of Empedocles, who posited two world forces, love and hate, which were in conflict, and the triumph of love over hate was the cause of organic evolution. The same idea may be found among the Semites for whom creation was the result of a conflict in which order emerged out of chaos because of the personal triumph of the creator.

Sometimes these two opposing primeval spirits are referred to as twins, but this is not correct. Although Ahura Mazda is the good principle and Angra Mainyu the evil principle, the conflict is essentially between Cpenta-Mainyu the beneficent mind—the Good Mind—and Angra Mainyu. Since Cpenta-Mainyu is an emanation from Ahura Mazda, Ahura is above both Cpenta-Mainyu and Angra Mainyu. If this were not the case, the Evil Spirit would be equal with Ahura Mazda, and thus Ahura would not be the supreme Lord of Creation. Thus behind or beyond this conflict which results in material creation is Ahura Mazda whom the *Zend-Avesta* does not attempt to define. Ahura Mazda was conceived as existing without beginning or ending, and that his essential characteristic was that he thought. “He never *began* to exist, so He never began to *create*. To *think*, with Him, is to *create*, and being, mind, intellect, wisdom, He never *was*, nor could be, without thought; to think, to exist, and to create, are with Him one and the same.” Thus in the Gathas we find the doctrine clearly expressed, that the universe is the uttered thought of God. We find further, that although Ahura Mazda is transcendent, he is also immanent in his creation and manifests himself in the material world.

We may say, then, that Zarathustra, the writer of the Gathas, conceived Ahura Mazda as the Infinite and Eternal One, the Creator, who although transcendent is immanent,

the Pure Light who did not create darkness but which the absence of light occasions. "By withdrawing Himself and His outflowing, He gave occasion for the darkness, which thus existed co-eternally with Himself, and uncreated like Himself, the twin of Cpenta-Mainyu, but not of the same father." Ahura Mazda, thus, must be conceived as the light—the hidden light—for if he had created light, or if his own existence had had a beginning, the darkness would have pre-existed eternally. Since this is not the case, Ahura Mazda remains supreme as the Eternal One, the source of creation whose thoughts becoming actual are the material world.

Thus we find that the Iranians believed that the source-of-all-things is fundamentally a unity which, although itself uncognizable, makes itself manifest through its emanations. It is further significant that they believed that the essential nature of that from which all things come is thought.

Since we have examined carefully and in detail the ideas of origin found among the ancient Indians and Iranians, let us here recapitulate the significant ideas which we found. Although the Vedic hymn, the "Hymn of Creation" (Rigveda X, 129), is the best source of ancient Indian ideas of origin which is available, we found significant ideas in other Vedic hymns even though they were couched in mythological terms. One of the first things which we encountered in our study was a paradox, found not only in the more mythological hymns but in the "Hymn of Creation" as well, as to which came first, the gods or Heaven and Earth. Sometimes the former are spoken of as creating the latter, and at other times as having been created by the latter. This paradox, however, was brushed aside by making Aditi, the Primordial Force of Nature, the source of all things. Aditi, we found, means "boundlessness" or the Boundless One, which immediately suggests Anaximander's idea of "the boundless" and the Egyptian Neb-er-tcher.

Again we found the idea of design expressed, for before the gods existed "Brahmanaspati like a smith together forged whatever is." Thus being from non-being came, and by some process of becoming, for the "spaces of the world" were born. The primacy of water we found was emphasized again and again. Certainly "the swelling flood" which was before the gods were established and from which they came, reminds us of Nu, the watery abyss of the Egyptians, of Thales, who posited water as the source of all things, of the Semites, of

Aristotle, and of the modern biologist. In this primal mass, a creative force lay hidden, an "embryo in which all the gods were aggregated"—the "Golden Germ" or egg—from which all things came by some process of becoming, a process by which that which was potential became actual. This idea of the potentiality of all things in an original germ was held by Augustine. The Egyptians labeled this idea Nu.

In the "Hymn of Creation," we found the tone more philosophical than mythological. Here we found the source-of-all-things to be conceived as impersonal—the "That One" or the "It" of creation. We also found here emphasis laid upon the watery chaos, the darkness, from which "That One" came into being. Here also was creative force or power which manifested desire, the product of thought, which brought being from non-being. Thus thought is given a fundamental place in the Indian ideas of origin.

When we turned to the Iranian ideas of origin, we found conflict to be a fundamental idea, an idea which is not only peculiar to the mythological tales, but is likewise characteristic of the more philosophical notions. This conflict, a conflict between good and evil, resulted in the creation of the material world. Empedocles, we are reminded, posited love and hate which were in eternal conflict, which conflict resulted in the whole of creation. The Semites, likewise, conceived of two opposing world forces which were responsible for creation. Again the Iranians conceived Ormazd as light—the Pure Light. This suggests, among other ideas, the Egyptian "Vision of Hermes" in which the cry of light was symbolized as a flame—the primacy of fire.

Thus we must note in closing, that we have been dealing with ancient ideas of origin which antedate those of the Greeks, and which are not so far different in many respects from those which we have been accustomed to attribute to the originality of the lovers of wisdom of the Golden Age of Greece. We have discovered, as a result of our careful inquiry, that there is a peculiar, yet interesting, resemblance between the ideas of origin of the Ancients and those of Western thinkers. Many of the notions which are characteristic of the evolutionary thought of the nineteenth and twentieth centuries are also found, as we have pointed out above, in the cosmological speculations of the ancients.