

Divine procreation of the world in Zoroastrian Pahlavi texts

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Abstract

There are two schemes of creation in Zoroastrianism. According to one, Ohrmazd fashions the world in the manner of a skilful craftsman. According to the second, Ohrmazd gestates and gives birth to the world. This article is about the latter. The relevant Pahlavi texts are presented and discussed. The article argues that Pahlavi authors used macrocosm-microcosm correspondence theory to elaborate the doctrine from Avestan rudiments.

Keywords: Zoroastrian Pahlavi literature, Cosmology, Creation myth, Macrocosm-microcosm theory, Theogony

Introduction

Religious traditions with a myth of creation are rare. In the proper sense of the term (“creation”) and ignoring the derivative cases, there were three such traditions in the ancient Near East and Mediterranean world: Zoroastrianism and Judaism, and perhaps the Memphite theology of Ptah.¹ In the *Timaeus*, which introduces the technical term *demiourgos*, Plato gives philosophy its own

- 1 Egyptian theology in general is too complex, both conceptually and historically, to allow an unqualified statement about Ptah. See Hornung (1996). Ptah and Khnum were known as divine smith and potter, respectively, who “fashion” “what exists” or “gods and men”. See Morenz (2004: 160–6). Khnum is the local god of Elephantine. See Hornung (1996: 69–71). The creator theology of Ptah must be considered within the cosmogonic frame of Egyptian theology and specifically in relation to Atum. See Bickel (1994: 53, esp. 137–45); Assmann (1998: 143–6). For the text of the Shabaka Stone see Traunecker (2004). For Morenz (2004: 92–5, 176–7, 180–2) the creator aspect is primarily cultic whereas accounts of the formation of the world are generally cosmogonic. Assmann, too, attenuates the distinction between cosmogony and creation. “Der Gott, aus dem die Welt hervorgeht, wird zugleich als Schöpfer in ihr wirksam” (cited in Bickel (1994: 126)). Bickel argues for the existence of a distinct concept of creation in Egyptian theology. A divine son (Shu or Ptah, for instance) of the primordial god (Atum) becomes the creator god and takes over his father’s creative energy and role in the world. “Contrairement à l’action du dieu unique qui est ponctuelle, celle du dieu-fils est permanente. C’est le dieu-fils qui perpétue l’énergie créatrice de son père dans le temps et l’étendue du monde crée... L’échange entre hommes et dieux que produit le rituel régulier est considéré comme le moteur essentiel de l’univers et comme la garantie de sa stabilité” (Bickel (1994: 113–14)). This conception is not very different from Assmann’s and Morenz’s after all. We must also keep in mind that the creative act of Ptah or Shu or Khnum is primarily envisaged as the separation of sky and earth. See Morenz (2004: 172–4). I wish to thank the reviewers of this article for their helpful comments.

myth of creation. This philosophical myth was taken up in subsequent cosmological speculations particularly under the aspect of macrocosm-microcosm correspondence theory.² The normal type of myths told about the beginning of the world was cosmogonic, that is, it described the emergence of the present world in stages from a primal condition characterized by the absence of structure. This condition was accordingly conceived as a yawning chasm (e.g. Hesiod), night (e.g. Derveni Orphic theogony), primeval waters (e.g. Homer, RV 10.129), or some such images.³ The cosmogonic account is also a theogony. The gods are for the most part personified elements or basic constituents of the world. A doctrine of creation, on the other hand, featured a creator god who purposely conceived and constructed the world. The world is thought out first in its form, then created or fashioned. The mental representation of the world prior to its creation gives it a unitary, organized character: the *kosmos* (*Timaeus*) or *aša* (Avesta). This criterion separates cosmopoiesis from cosmogony.

There are stories that are mistakenly designated as creation myths. One of these is, in my view, the story of Marduk slaying the water monster Tiamat. It is in some ways difficult to categorize this story as it is related in the *Enūma Eliš* from the end of the second millennium BCE. It uses the scheme of combat myth for the elevation of Marduk, and thereby Babylon, in the face of Assyrian political ascendancy.⁴ The author of the Babylonian text incorporates two basic Mesopotamian cosmogonic themes: the emergence of the world from the primordial waters and the separation of sky and earth.⁵ Although Marduk's installation of the heavens and earth from the moieties of the corpse of Tiamat is somewhat anomalous in the context of Mesopotamian cosmogonic traditions, it can be plausibly described as an elaboration of the central feature of the combat myth (i.e. victory over a monster) with a political intent. It absolutely elevates Marduk by magnifying the stakes of the combat and the world-defining consequences of his victory.⁶ To some extent, this perspective also applies to the god of Genesis 1, the suppression in the account of the combat motif and the slaying of the watery chaos (Tehom) notwithstanding.⁷ The Exilic and Achaemenid contexts of the formulation of Yahwism has been emphasized in the scholarship.⁸ The claim to universal sovereignty by a god

- 2 This does not mean that Plato did not try to incorporate Hesiodic cosmogony into his account, precisely as a venerable tradition. See *Timaeus* 40e–41a. Cf. Sedley (2009).
- 3 See Morenz (2004: 166–76) on the primeval ocean Nun and his role in the Hermopolitan cosmogony; Burkert (1999: 92); Witzel (2012: 108–17); Rubio (2013). It seems that in Hesiod there are three primordial divinities: Chaos, Gaea and Eros. Each of the first two has its or her own separate lineage.
- 4 Michalowski (1990). See also Smith (1982) for a thought-provoking interpretation of the Akitu festival.
- 5 See Rochberg (2020); George (2016); Lambert (2013: 439–65).
- 6 See George (2016: 24), who calls it a “cosmic adaptation of the monster-slaying myth” which “ultimately derives from Syrian myths in which the storm-god battles the Sea”.
- 7 On the connections between (Ugaritic) Ba'al and Yahweh, see Cross (1997: 147–94); Wyatt (1996). “Yahweh is a warrior” (Exod. 15:3) throughout the Pentateuch; note especially the so-called Miriam's song in Exodus 15 and the reference to the lost Book of the Battles of Yahweh in Num. 21: 14–15. The image of Yahweh as a warrior is also present in the Psalms, e.g. Pss. 21: 9–13; 24: 8.
- 8 Cf. Davies (1992); Smith (2001); Grabbe (2007); Bremmer (2008b).

is not necessarily a function of the formation of an empire. It may well be an ideological self-assertion or over-compensation in the condition of political weakness, as it appears to be with Marduk and Yahweh. In any case, the pretention to universal imperium seems to require the status of the authorship of the worldly order. A good illustration of this, as we will see, is the Orphic Zeus.

Pahlavi schemes of creation

In Zoroastrian Pahlavi literature there are in fact two schemes of creation: procreation and production of the world. In their basic conceptions both of these go back to the Avesta and indeed the Gāθās. The procreation model, according to which the creator god gestates the fetus-world and gives birth to it, seems to be unique to (Pahlavi) Zoroastrianism – with the exception of a partly parallel image in Orphic literature. The production model comes in two varieties, which may be designated as the standard doctrine⁹, since it is already articulated in the Avesta, and the Hellenized doctrine (particularly in the third book of the *Dēnkard*), which borrows its notions and structure from Greek natural philosophy. In both the biological and technological models creation comprises two stages: *mēnōg* (mental) and *gētīg* (corporeal). The Sasanian Avesta apparently contained a *nask* called *Dāmdād* which was dedicated to the doctrine of creation. The summary of the *Dāmdād* given in *Dēnkard* 8.4 contains little detail of the doctrine. If this summary is in fact of an Avestan text, the doctrine of creation in Pahlavi texts must date to a period when texts could still be composed in Avestan.

D 8.4.1 *Dāmdād mādayān abar kunišn ī dādārīh ud dādan ī dām 2 pāhlom fradom pad mēnōgīh ud čand ud čiyōn dāstan ī pad mēnōg waštan ī aziš gētīg čīhrēnīdag sāxtag ō andar ēbgatīg kōxšīšn pattūdan rāyēnīdan paywastag šahistan ī [tā] ō frazām ī drang ī ēbgatīg*

The book of *Dāmdād* is about the activity that pertains to the creator and the creation of the world, [which is] excellent, first in the *mēnōg* state, and how long and in what manner it is kept in the *mēnōg* state, and its transformation from that state into the *gētīg* world, which is made and structured for withstanding the struggle against the adversity of Ahriman's assault, being constantly ready [for that purpose], and managing it until the end of the period of the assault.

D 8.4.3 *ud rastag [ud] + ēwēnag dāmdahišnīh u-šān stī ud tōhmag ud srādag ud čīhr ud kār ud čē andar ham dar 4 ud čim čē dahišnīh ud abdom ō čē rasišnīh*

[It is also about] the kinds and types of creatures, and their existence, origins, species, nature, function and other related topics, and [about] the reason for the creation of the world and its final outcome.¹⁰

9 See Ahmadi (2021).

10 See Nazari-Fārsāni (2018: 47–8).

The purposefulness of the creation is given the pride of place. The creator not only conceives the world prior to its creation but does so for a particular purpose. Pahlavi authors' characterization of the "creation in the *mēnōg* state" must be understood in the first place as the creator god's (mental) conception of the world. This is its basic meaning. The semantics of *mēnōg* allows Pahlavi authors to represent this world *qua* idea as having a celestial existence whose being (*stī*) consists in light. This notion of the "mental" origin of the world, perhaps even in the latter aspect, goes back to the Gāḍās, for example, Y 31.7. The expression *pad mēnōgīh dāštan* "holding in the *mēnōg* state" is used to describe the relation of the creator to the world prior to its *gētīg* creation in both biological and technological schemes. It is possible that the question of the duration and particularly the manner in which the world "is held" by the creator god was answered by the procreation model scheme in some contexts.¹¹ In this article I examine the biological scheme of creation in Zoroastrian Pahlavi texts.

Divine procreation of the world in Pahlavi texts

The procreation of the world is a curious notion. The world is in effect pictured as an organism. For Plato in the *Timaeus* the cosmos is a living entity endowed with a soul. One might think that the conception of the creator god giving birth to the world in Zoroastrian Pahlavi literature is a comprehensible extension of some version of the macrocosm-microcosm correspondence. In my view, this is unlikely. Why duplicate without any authoritative (Avestan) basis the standard doctrine of creation? The Gāthic notion of "engenderment" of the world, however vaguely conceived, may well be the rudiment which the Pahlavi authors elaborated into an articulate image using the macrocosm-microcosm correspondence theory. We find different reflections or versions of this theory in both astrological and eschatological contexts in Pahlavi texts. The Gāḍās use the phrase *aṅhēuš zqḍa-* "engenderment of existence" beside the notion of craftsmanship (*huuāpah-*) to express the process of creation.¹² The meaning of *zqḍa-* as procreation is evident in the Gāḍās: Y 44.3 *kasnā zqḍā, pīā ašahiīā pouruiiō* "who indeed is the primordial father of *aša* by begetting?"¹³ It is reasonable to think that such a notion marginally existed in Zoroastrian lore. It is true that the Pahlavi translators of the two Gāthic passages (Y 43.5 and 48.6) where the term *zqḍa-* occurs make it (*zahag* "offspring") bear on Wahman (Avestan *vohu-* *manah-*). But the extant translation does not disprove the existence of the notion in Zoroastrian tradition or rule out that at some stage the Gāthic expression was understood to mean "birth of the world". The incompatibility of this marginal notion with the standard doctrine of creation could not have been lost on the Pahlavi authors. They must have felt they were authorized to develop the image of divine procreation of the world, probably encouraged by the popular theory of macrocosm-microcosm correspondence. That image

11 This of course does not mean that the biological and technological schemes are logically compatible.

12 See Hintze (2014: 230, note 26).

13 Cf. Hintze (2014: 229–33).

provides Pahlavi authors the grounds for the deployment of macrocosm-microcosm homologies.

The clearest expression of the procreation model is given in the *Bundahišn*.

Bd 1.57 *dām ī Ohrmazd pad mēnōgīh ēdōn parward kū tarrīh estād a-menīdār ud a-rawāg čiyōn šuhr homānāg pas az tarrīh gumēzagīh šuhr ud xōn homānāg pas az gumēzagīh xwurdagīh būd daštāg-ē(w) homānāg pas az xwurdagīh wiškīdagīh būd <čiyōn> dast ud pāy pas az wiškīdagīh gabrīh būd <čiyōn> čašm ud gōš ud dahān pas az gabrīh čandišag būd ka be ō pēš-rawišn estād nūn-iz pad gētīg pad ān hangōšīdag andar aškam(b) ī mādar hambūsēnd ud zāyēnd ud parwarēnd*

Ohrmazd's creation in the *mēnōg* state was nurtured in this way: it was in a moist state, unthinking, intangible and motionless, semen-like. After the moist state, [it was] in a mixed state as of semen and blood. After the mixed state, it was in the state of a particle like a fetus. After the particle state, it was in the state of being unfolded as [with] hands and feet. After the unfolded state, it internally developed [organs] such as eyes and ears and mouth. After internal development, it became moving when it reached mobility. Even now in the *gētīg* state [humans] are conceived inside the mother's womb and are born and nurtured according to that model.¹⁴

Bd 1.58 *Ohrmazd pad dām-dahišnīh mādarīh ud pidarīh ī dahišn ast čē ka-š dām pad mēnōg parward ān būd mādarīh ka-š be ō gētīg dād ān būd pidarīh*

In creating the world Ohrmazd is the mother and the father of creation; for when he nurtured the world in *mēnōg* state, he acted as its mother; when he created it into *gētīg* state, he acted as its father.

The comparison between the world and human being is made on the basis of the process of gestation and parturition. The motif that the world starts as *šuhr* "semen" is found throughout Zoroastrian Pahlavi texts. It is possible that the notion of the procreation of the world absorbed the commonplace ancient motif that the world emerges from primordial waters.¹⁵ We find it, for instance, in *Dēnkard* 3.123 *tōhmag ī gētīg būdag ī az dādār āfurišn ud dahišn . . . nāmčīšt garm-xwēd bun gētīg dahišnān mādag-iz dānīhēd* "the seed of the *gētīg* creation is an entity from the creator's creation . . . [it is] namely moist and warm, the origin of the *gētīg* creatures, also known as matter".¹⁶ It is certain from the context that by *tōhmag ī gētīg* is meant the originative substance of

14 Note that the cosmos is the model for the human being, the microcosm. Cf. Cereti and MacKenzie (2003); Agostini and Thrope (2020: 11).

15 See for instance Bickel (1994); George (2016); Rubio (2013); Lambert (2013); Witzel (2012); Bremmer (2008a); Burkert (1999).

16 Fazilat (2004: 65).

the *gētīg* world.¹⁷ In the *Bundahišn* chapter on the *gētīg* creation, the procreation model appears side by side with the production model. The following text is inserted in the exposition of the standard doctrine of creation.

Bd 1a.3 *čiyōn gōwēd pad dēn kū fradom dām hamāg āb-ē(w) srešk-ē(w) būd kū hamāg az āb būd jud tōhm ī mardōmān ud gōspandān čē ān tōhm ātaxš tōhm*

As it is stated in religion: at first the entire world was a drop of water, that is to say, everything came from water, except the seeds of human beings and beneficent animals, for these seeds are fiery seeds.

The exception made of the *tōhm* of humans and beneficent animals must be due to the luminous *čīhr* of (the souls) of these creatures.¹⁸ While in the cited passage the *gētīg* world is said to develop from a drop of water, the exposition of the standard doctrine that preoccupies the rest of the chapter starts the process of creation with *asar-rōšnīh* (celestial lights). In the opinion of the author of Chapter 46 of the *Pahlavi Rivāyat*, the procreation scheme can apparently dispense with the idea of the watery origin of the world. The originative substance of the *gētīg* world is said to be *asar-rōšnīh* “endless light”, i.e. pure light *qua* substance. This is quite understandable, since, as I mentioned, the substance of the world in the *mēnōg* state is light. The same idea is found in the *Bundahišn*.¹⁹

PRDd 46.3 *u-š hamāg dām ud dahišn az ān [i.e. asar-rōšnīh] be kard ud ka-š be kard būd ā-š andar ō tan burd u-š sē hazār sāl andar tan dāšt u-š hamē abzāyēnīd u-š weh hamē kard u-š pas ēk ēk az tan ī xwēš hamē brēhēnīd*²⁰

Ohrmazd made the whole world and creation from that [i.e. endless light], and once he made it he took it into [his] body and kept it for three thousand years in his body and constantly developed and improved it, and then one by one created it [in the *gētīg* state] from his body.

17 Compare Aristotle, *Metaphysics* A3, 984b6: “Most of the first philosophers thought that principles in the form of matter were the only principles of all things; for the original source of all existing things . . . this they declare is the element (*stoicheion*) and first principle of existing things . . . there must be some natural substance, either one or more than one, from which the other things coming-to-being . . . Over the number, however, and the form of this kind of principle they do not all agree; but Thales, the founder of this type of philosophy, says that it is water (and therefore declared that the earth is on water), perhaps taking this supposition from seeing the nurture of all things to be moist . . . taking the supposition both from this and from the seeds (*spēmata*) of all things having a moist nature, water being the natural principle (*archē*) of moist things” (in Kirk et al. (2007: 89)).

18 See Ahmadi (2020).

19 Bd 1.43 *Ohrmazd az ān ī xwēš xwadīh az stī ī rōšnīh kirb ī dāmān ī xwēš frāz brēhēnīd pad ātaxš kirb ī rōšnīh ī spēd ud gird ud frāz-paydāg* “Ohrmazd created the visible form of his creation from his own essence, that is, from the being of light, in fiery form, which is bright and white, and circular and eminently manifest”. (The paragraph is not cited in full.) At issue is the visible form of the world in the *mēnōg* state.

20 See Williams (1990: I, 161). Cf. Bailey (1971: 121).

Ohrmazd keeps the world in his body (*ā-š andar tan dāšt*), where it grows and develops, but then he creates the constituents of the *gētīg* world one at a time from his body (*az tan ī xwēš*). The incongruity is evident. Williams's translation, which presumably wants to circumvent it, is not tenable in my view: "when he had made them he put them into a body and kept them in a body for 3,000 years... then one by one he kept creating (them) from the body of his own (making)".²¹ Williams suppresses what the text says, namely that the world is imagined as a fetus in the state of gestation inside Ohrmazd's body.²² Gignoux maintains that in the passage Ohrmazd creates the world "from his own body [parts]", i.e. the god auto-dismembers to create the world, "and not from [those of] Gayōmard".²³ Aside from the fact that the Pahlavi text cannot have this meaning, the image suggested by Gignoux is inconceivable in its working. Why expect that the Pahlavi author could envisage it? Gignoux appeals to what he describes as the "very general theme" according to which the world is constructed out of the body parts of a primordial giant. Even if this is allowed – a problematic proposition in itself (see below) – dismembering another being and using the body parts as construction material is one thing, dismembering oneself for construction material is quite another. Who would be the maker then?

PRDd 46.4 *u-š nazdist asmān az sar be brēhēnīd* ... 46.5 *u-š zamīg az pāy be brēhēnīd* ... 46.11 *u-š āb az ars be brēhēnīd* ... 46.13 *u-š urwar az mōy be brēhēnīd* ... 46.15 *u-š gāw az dast ī dašn be brēhēnīd* ... 46.28 *u-š ātaxš az wārom be brēhēnīd*

First [Ohrmazd] created sky from the head ... and he created earth from the feet ... and he created water from the tear [drops] ... and he created the plant from the hair ... and he created the cow from the right hand ... and he created fire from the mind.

The section on the creation of Gayōmard (46.36) appears to have been inserted at a later date, perhaps because the original, located somewhere between sections 15 and 28, had been lost.²⁴ One may conjecture that in the original Gayōmard was said to have been created from the left hand of the cosmic fetus (cf. Bd 7.4 and 7.7). The macabre image of the creation of the worldly constituents

21 Williams (1990: II, 72).

22 The Pahlavi phrase *ā-š andar ō tan burd* means "then he took [the creation] into his body" and not "into a body". The reflexive pronoun *xwēš* is not required. It is evident from the final phrase of the cited passage (*az tan ī xwēš hamē brēhēnīd*) that it is Ohrmazd's own body that is meant. See Hintze (2014: 38–9) who supports this view. According to Williams (1990: II, 204), the body used by Ohrmazd is something like Vedic *Puruṣa*. But there is no evidence for the existence of a cosmic sacrifice in Zoroastrianism. The text that Williams adduces in support of his view, namely *Dādestān ī Dēnīg* 63, only states the standard Zoroastrian account that the primordial human being was created from the *asro-kerpa* "form of fire", and that he was motionless for three thousand years. The gloss in Dd 63 that he is "called the world", as we will see, is due to the macrocosm-microcosm correspondence theory.

23 Gignoux (1994: 37).

24 I say this not only because of its relative location in the extant text but also because of its content.

one at a time through harvesting the cosmic fetus is the outcome of the author's attempt at adjusting or indeed subordinating the procreation scheme to the standard doctrine of creation. The macrocosm-microcosm correspondence theory is used to effect the subordination. Obviously, it is abortive, but it shows the versatility of the theory. Here is the *Bundahišn* version of the theory.

Bd 28.1 *pad dēn gōwēd kū tan ī mardōmān handāzag ī gētīg*

It is said in religion that human body is in the likeness of the *gētīg* world.

Bd 28.2 *čē gētīg az āb-ē(w) srešk kard estēd čiyōn gowēd kū ēn dām fra-
dom hamāg āb-ē(w) srešk būd mardōmān-iz az āb-ē(w) srešk hamē
bawēnd*

For the *gētīg* world has been made from a water drop, as it is said that the world was first but a water drop. Humans, too, are from a water drop.

Bd 28.3 *owōn čiyōn gētīg pahnāy abāg dra(h)nāy rāst mardōm-iz ham
gōnag har(w) kas dra(h)nāy ī <pah>nāy ī xwēš ast*

PRDd 46.36 *u-š mardōm az ān gil kē-š gayōmard aziš kard pad šuhr ēwēnag
andar ō spandarmad hišt ud gayōmard az spandarmad be brēhēnīd ud zād
čiyōn mahliya ud mahliyānē rust hēnd sē hazār sāl nē rawēnd ka ahreman
andar dwārist sīh sāl būd tā hamē raft u-š frawardīn māh rōz Ohrmazd be
ozad šuhr ī gayōmard be ō zamīg mad čehel sāl pad šuhrīh andar zamīg estād*

[Ohrmazd] made human beings from that clay from which [he made] Gayōmard. [Human] *ēwēnag* was deposited in Spandārmad [i.e. the earth] in/as/through [Gayōmard's] semen. Gayōmard [read: human being] was created and born from the earth – as Mahliya and Mahliyānē grew up (from the earth). [Gayōmard] did not move for three thousand years. When Ahriman set on the world, thirty years passed before [Gayōmard] departed. He was killed on the day of Ohrmazd in the month of Frawardīn [and] Gayōmard's semen was deposited in the earth. It was in the earth for forty years in the form of semen.

The second mention of Gayōmard is clearly mistaken and must be corrected to *mardōm* “human beings”. See Williams (1990: II, 211–12). If one amends the second mention of Gayōmard to *mardōm*, then the clause *čiyōn mahliya ud mahliyānē rust hēnd* can be understood as the specification of **mardōm az spandarmad be brēhēnīd ud zād*. I understand *rawēnd* as a mistake for *rawēd*. In the standard doctrine the first human couple grows in the form of a rhubarb plant from the earth, that is to say, from Gayōmard's semen deposited in the earth as he dies. In the motif of the merits of the *xwēdōdad* “kin marriage”, which is largely independent of the standard doctrine of creation, Gayōmard is said to be the offspring of the union of Ohrmazd and his daughter Spandārmad (cf. Dd 64.2; PRDd 8a; D 3.80). The idea of “making Gayōmard from *gil*” clashes with the “correspondence” premises of the present creation account. It is also *prima facie* at odds with the normal physiognomy of Gayōmard, e.g. luminous like the sun. *gil* is the potter's clay. If the statement *ān gil kē-š gayōmard aziš kard* is meant by the author as an alternative expression of the idea that Gayōmard is born from Spandārmad, it is formulated under the influence of the Semitic notion of the making of human(s) from the potter's clay which we find in both Babylonian (*Atrahasis* I) and biblical (Genesis 1) traditions.

Just as the height and width of the *gētīg* world are equal, it is likewise in humans: the height of each one is the same as their own width [i.e. when the arms are stretched out to the sides].

Bd 28.4 *pōst čiyōn āsmān gōšt čiyōn zamīg astag čiyōn kōf ragān čiyōn rōdīhā ud xōn ī andar tan čiyōn āb ī andar zrēh ud aškamb čiyōn drayā ud mōy čiyōn urwar ud ānōh kū mōy wēš rust estēd čiyōn wēšag ud gōhr ī tan čiyōn ayōxsust ud āsn-xrad čiyōn mardōm ud gōšōsrūd-xrad čiyōn gōspand ud garmīh čiyōn ātaxš ud dast ud pāy abzār čiyōn haftān ud dwāzdahān ud kumīg ī xwardīg-gugār čiyōn abr ud ātaxš ī Wāzišt ud⁺ wēn āwarišn ud barišn čiyōn wād ud jagar čiyōn zrēh ī Frāxkard ī bun-kadag ī hāmīn ud spul čiyōn kust ī abāxtar kū āšārišn ī zamestān ud dil ī gird <čiyōn> āb ī Ardwīsūr ī a-winast čē dil-iz wēmārīh awišt nē rasēd be agar ka-š marg bālist ī sar ud mazg čiyōn asar-rōšnīh ud sar čiyōn garōdmān ud dō čašm čiyōn māh ud xwaršēd ud dandān čiyōn stārag ud dō gōš čiyōn dō rōzan ī garōdmān rāy paydāg kū-š padīš kē hāmwar āwāz ī pad niwāg ī xwaš padīš hamē āyēd kē ruwān huniyāgīh ud rāmišn aziš dō wēnīg čiyōn dō⁺ damīg ī garōdmān rāy gōwēd kū-š padīš hāmwar bōy ī xwaš ī gōnag gōnag padīš andar damēd kē ruwān hu-bōyīh ud urwāhmanīh aziš dahān ān dar ī pad garōdmān kē hāmwar mizag ī gōnag gōnag padīš andar āyēd kē ruwān čarbīh ud padēxīh aziš kūn čiyōn dušox andar zamīg kūn azērtar nišēm ī tan ruwān čiyōn Ohrmazd ud oš ud wīr ud mārišn ud handēšišn ud dānišn ud uzwārišn čiyōn ān šaš Amahraspand ī pēš ī Ohrmazd estēnd abārīg waxš ī andar tan čiyōn abārīg mēnōgān yazdān*

The skin is like the sky; the flesh is like the earth; the bones are like the mountains; the veins are like the rivers, and the blood in the body is [like] sea waters, and the belly is like the sea, and the hair is like plants, and where more hair has grown is like forest. The substance of the body is like metal; the innate intelligence is like the human being and the acquired intelligence is like the beneficent animal; [body's] warmth is like the fire; hands and feet *qua* instruments are like the seven planets and twelve constellations; the food-digesting belly is like the cloud and the Wāzišt fire; respiration is like the wind; the liver is like the Frāxkard sea which is the headquarters of summer; the spleen is like the northern region, that is to say, the *āšārišn* [region?] of winter; the rounded heart is like the water of Ardwīsūr which is unsullied, for the heart, too, remains unafflicted until death. The top of the head and the brain are like the endless light; the head is like Garōdmān; the two eyes are like the moon and the sun; the teeth are like the stars. The two ears are like the two openings of Garōdmān: it is revealed that through them a beautiful sound of music continuously reaches [in], which gives delight and peace to the soul. The two nostrils are like the two breathing ducts of Garōdmān: it is said that every kind of delightful scent continuously wafts inside, which provides fragrance and pleasure for the soul. The mouth is like the door of Garōdmān through which every kind of taste enters, which gives the soul nourishment and well-being. The buttock is like the underworld

inside the earth. The buttock is the bottommost seat of the body. The soul is like Ohrmazd and memory and mind and remembrance and thought and knowledge and understanding are like the six Amahraspand who stand before Ohrmazd. The rest of the spiritual powers inside the body are like the rest of the *mēnōg* gods.

Both the world and human being originate from “a drop of water”, which explains why they correspond (Bd 28.2). Both start as semen or semen-like (Bd 1.57 *šuhr hōmānāg*), go through a period of gestation in the womb, and are born. In the case of the cosmic fetus, parturition also means being born from the *mēnōg* state into the *gētīg* state, however the coincidence of these two processes is imagined. As far as the author is concerned the biological conception of creation grounds the macrocosm-microcosm correspondence theory. This is a significant point. It gives the lie to the so-called cosmogonic sacrifice put forward by a number of Indo-Europeanists.²⁵ Whatever the merits of such a theory in other cases (and I do not think there are any), it does not have any purchasing power on the Iranian material. I underline the fact that in the author’s view the cosmos is the model. This text shows that the homologies between the cosmos and human body are mostly the result of an exercise in analogizing. The matched pairs have different grounds, such as the relative position or form or function of the respective components, some of which are rather artificial. Comparing stars with the teeth only makes some sense in the frame of Zoroastrian cosmology and on the condition that the two eyes are matched with the sun and the moon. The belly is likened to clouds and the Wāzišt fire because these (along with *wād* “wind” or “air”) are in the middle between the celestial sphere and earth (cf. Bd 2.17).²⁶ The cosmic model of the nostrils or the ears is clearly artificial: physiognomic features must have cosmic counterparts. The heart is strangely likened to the water of Ardwīsūr because it remains untouched with illness as long as it is alive (*čē dil-iz wēmārīh awiš nē rasēd be agar ka-š marg*), and not because the heart pumps the blood throughout the body just as the Ardwīsūr brings water to the earth. In what way are hands and feet “instruments” like the seven (planets) and the twelve (constellations)? The planets cannot be envisaged as demonic in this context. Logically, if the skin is likened to the sky, trees and plants cannot be the cosmic counterpart of hair, which are nevertheless homologized by the author, indicating perhaps the strength of the particular connection. Note the comparison of the innate intelligence (*āsn-xrad*) with the human being as a cosmic constituent – probably the human soul is meant. The pairing of the mental faculties and the six Amahraspand seems forced and relies on the comparison of the soul with Ohrmazd. This is the reason why the six pairs are not actually specified. In the same chapter of the *Bundahišn* the Amahraspands are paired with different body parts.

25 See Lincoln (1986: 1–64). His description of Gayōmard as “the first man, from whose body the cosmos was created” (Lincoln (1986: 128)) lacks evidence. It is unfortunate that Iranists have generally adopted Lincoln’s spurious cosmogonic sacrifice.

26 See Hintze (2007).

Bd 28.22 *ēn-iz paydāg kū har(w) pēšag ī mardōmān mēnōg-ē(w) xwēš gyān ud har(w) rōšnūh abāg gyān oš ud bōy ud abārīg az ēn mar Ohrmazd xwēš ud gōšt Wahman ud rag ud pay Ardwahišt ud astag Šahrewar ud mazg Spandarmad ud xōn Hordād ud mōy Amurdād xwēš hēnd*

This, too, is obvious that each function of the human being has a *mēnōg* [model]: the vital soul and all light along with the vital soul, memory or consciousness and the remaining similar faculties are akin to Ohrmazd. Flesh is akin to Wahman, veins and nerves to Ardwahišt, bones to Šahrewar, marrow [or brain] to Spandarmad, blood to Hordād, hair to Amurdād.

Compare this list of homologies with the one cited above (Bd 28.4) on the one hand and with the doctrine of the sponsorship of the seven basic *gētīg* creations by the Amahraspands on the other. This latter may be called the *daxšagān* doctrine. Fire is said to be the *daxšag* (i.e. the *gētīg* “sign”) of Ardwahišt, and so on.²⁷ According to the *daxšagān* doctrine, Ohrmazd creates the seven basic constituents of the world and places each of them under the tutelage of one of the six Amahraspands (Bd 1.52 *šaš rad* “six guardians”) while taking charge of human beings himself. The *gētīg* heptad are said to have their *raison d’être* in the existence of seven principal gods in the *mēnōg* realm (Bd 3.8 *dahišn-iz mēnōg ud gētīg ham ēwēnag dād*). Since there are seven *mēnōg* gods (Bd 3.8 *čiyōn mēnōg Ohrmazd ud ān šaš Amahraspand*), so the heavens have seven levels (Bd 3.8 *ēdōn-iz āsmān haft pāy <ag>*). For the same reason, there are seven *gētīg* constituents, namely sky, water, earth, plants, beneficent animals, human beings, and fire, created in that order (Bd 3.9 *ōwōn-iz dām ī gētīg haft brēhēnīd. nazdist āsmān dudīgar āb sidīgar zamīg čahārom urwar pañjom gōspand šašom mardōm haftom ātaxš*). This heptadic scheme in which the six Amahraspands plus Ohrmazd take charge of the *gētīg* heptad must be a post-Avestan development.²⁸ The *daxšagān* doctrine is probably the fruit of theological speculations about the Amahraspands (Bd 3.8), particularly their hierarchy as this appears in Young Avestan texts,²⁹ but astrological encouragement cannot be ruled out. The hierarchy is the reason why the order of the assignment of the *daxšagān* to their respective tutelary gods (Bd 3.14–22) does not follow the order of creation but that of the relative importance of the god: Ohrmazd, humans; Wahman, beneficent animals; Ardwahišt, fire; Šahrewar, metals; Spandarmad, earth; Hordād, water; Amurdād, plants. The one-to-one association in Zoroastrian Pahlavi literature of the principal gods with the seven “creations” is not explicitly present in Avestan texts, but its rudiments are certainly there.³⁰ The closure of the list of the seven gods *and* the

27 Bd 1.52 call the Amahraspands in this role as *rad* “custodian”. The doctrine is clearly expressed in ŠGV 1.5.

28 In this scheme, the *daxšag* of Šahrewar is, strictly speaking, *ayōxšustān* “metals” and not *āsmān*, although this latter is made of metal. Cf. Yt 13.2 and Bd 1a.7.

29 In Y 16.3 the six *amaša spənta* other than Ahura Mazdā are listed in an apparently canonical order. See Johanna Narten (1982); Jean Kellens (2014).

30 See Kellens (2016: 170).

virtual fixation of the list of the “creations” must have exerted strong pressure to systematize the Avestan rudiments into a doctrine (*daxšagān*).³¹ The strong bond of Aša with fire as the *rads* (*ratus*) of the *rapihwīn* (*rapiθβīna*) *gāh* made the latter a *gētīg daxšag*, although fire is not strictly speaking a *gētīg* creation. The *gāh* association of Aša and fire is probably due to the fact that the term *aša* (in one of its Avestan acceptations) refers to the divine sphere, fundamentally characterized by light. It is possible that the doctrine of *daxšagān* on the one hand and the correspondence theory on the other prompted homologizing speculations about the Amahraspands such as those in the two texts cited above (Bd 28.4 and 28.22).³²

In the chapter “On the composition of human beings” (WZ 30), Zādspram compares the seven “layers” of the human body with the seven “planets” (in the classical order), and the four humours (*āmēzišn*) of the body with the four classes of the Sasanian body politic.³³

WZ 30.4 *tanīgardīg pad haft tōf uspurriḡihēd ī ast ān ī andartōm mazg pēramōn mazg ast ud pēramōn ast gōšt ud pēramōn gōšt pay ud pēramōn pay rāg ud pēramōn rāg pōst <ud> pēramōn pōst mōy*

[Human body] in its solid constitution consists of seven layers: the innermost layer is the marrow, around the marrow is the bone, around the bone is the flesh, around the flesh are the nerves, around the nerves are the veins, around the veins is the skin, and around the skin is the hair.³⁴

WZ 30.5 *ud⁺ niyāzihēd mazg ō māh kē-š petyārag māh ī abāxtarīg kē čiyōn māh bay pad waxšišn hangām drust-čihragih abzōn abar mazgān kunēd māh ī abāxtarīg be wināhēd <ī> andar abāxtarān parisḡ ī andarōntom dārēd*

The marrow needs the moon – whose adversary is the wandering moon – as the moon god in the waxing phase enhances the health of the marrows, [which] the wandering moon, which among the planets holds the innermost orbit, damages.

WZ 30.6 *ud azabar māh tīr u-š mehmānīh abar ast* 30.7 *ud azabar tīr anāhīd u-š mehmānīh abar gōšt* 30.8 *<ud> azabar anāhīd mihr u-š mehmānīh abar pay* 30.9 *ud azabar mihr wahrām u-š mehmānīh abar xōnīg rāg* 30.10 *<ud> azabar wahrām ohrmazd u-š mehmānīh abar*

31 Cf. Kellens (2008: 510), “Le poète de Y44 est animé d’une intention spécifique et essentielle : associer intimement la création des éléments naturels et celle du panthéon qui deviendra, dans l’Avesta récent, le corps des Aməša Spəntas.”

32 See Bd 28.18 for another instance.

33 Zādspram makes other comparisons which I leave out.

34 According to Plato in the *Timaeus*, the human body is constructed in seven layers (marrow, bone, flesh, ligaments, mouth, skin, hair and nails) from various combinations of the four Empedoclean elements (*Timaeus* 73b–76e).

pōst ⁺*hu-čihrgar ī tanān* 30.11 <ud> *azabar ohrmazd kēwān u-š mehmānīh abar mōy*

Above the moon is Mercury whose domain is in the bone; and above Mercury is Venus whose domain is in the flesh; and above Venus is the sun whose domain is in the nerves; and above the sun is Mars whose domain is in the blood vessels; and above Mars is Jupiter whose domain is in the skin, which beautifies the bodies; and above Jupiter is Saturn whose domain is the hair.

What do we make of Zādspram's matching the planets, despite their demonic status,³⁵ with the "layers" of the human body? The sun and the moon have "dark" counterparts in Pahlavi texts (as the author mentions the *māh ī abāxtarīg*), but no such doubling is known for the five planets. The *abāxtarān* at WZ 30.5 must include the five planets which are subsequently named and assigned to five "layers" of the body. One would have to conclude that Zādspram's correspondence schema in the passage must antedate the demonization of the five planets. The remark in WZ 30.5 about the *māh ī abāxtarīg* should then be understood as extraneous. Each of the "seven planets" corresponds to and sponsors one "layer" of the human body. It is nonetheless remarkable that Zādspram reproduces the correspondence schema in his text, for he is unquestionably aware of the "demonic" status of the planets (cf. WZ 2.11 and 18) – if these passages are from the same pen. The presence of this schema attests to the reception of the astrological theory, which, once adopted, developed into a productive system of speculation with its own parameters and dynamics. In the same chapter (WZ 30) Zādspram makes use of the Hippocratic theory of humours (*āmēzišn*) for comparing human body with the body social.

WZ 30.18 *ān čahār āmēzišn ī jud-čihrag jud-kār <homānāg> be ō čahār pēšag <ī> mardōm ī hēnd hammōzgār āsrōn ud zadār artēštār ud parwardār wāstaryōš <ud> paristār hutuxš* 30.19 *tōhmag abar awēšān čiyōn šahryār abar čahār pēšagān*

The four humours which are different in nature and function are like the four classes/professions of people that are the priests that educate and the military men that fight and the farmers that cultivate and the artisans that provide services. The relation of the seed to these [humours] is like that of the prince to the four classes/professions.

The classes of the Sasanian society and the Hippocratic humours match in number, and thus the society and human body may be compared on that basis within the macrocosm-microcosm frame. Nothing more is required. No attempt is made to justify the (supposed) respective homologies or map the hierarchy of the social classes onto the four humours. This shows that the actual application of the correspondence theory is quite flexible. The cosmic, social and human

35 See Panaino (2020: 363–70).

bodies correspond. The articulated homologies in each case depend on the perspicuity of the paired features and the perspicacity of the observer. If, for instance, the cranium or brain is likened to the celestial sphere, which is a regular item on the list of homologies, it is because both are spherical and the topmost part of the respective bodies. In the *Timaeus* (69de and 90ad) Plato adds to these the notion that the cosmic vault and the head are the seats of divine intelligence. Once the theory is adopted, there are many speculative opportunities to “observe” correspondences, some based on the appearance of the phenomena, some based on the relative position or function of the alleged pairs within the respective bodies, others based on particular traditional notions (as we saw above). If the flesh is likened to the earth, understandably bones must correspond to rocky veins and mountains, and the hair to trees and plants. To what cosmic feature does the skin correspond in this case? None exists, although skin is a fundamental component of human body. Thus, in some lists, it is homologized to the sky, since this “covers” the earth (i.e. flesh), but then the head is left without cosmic counterpart, and the plants–hair correspondence is jeopardized. Rivers and seas are regularly paired with the blood, while the rain may be compared with tears at a pinch. But no plausible human homology has been noted for humans and animals, although these are basic constituents of the cosmos (for example, in Zoroastrian cosmology).³⁶ It may be suspected that at least some of the homologies must be the empirical basis of the idea of macrocosm-microcosm correspondence. I do not think that this is the case. In Zoroastrian Pahlavi texts, the homologies are adopted with the theory or produced on the basis of the theory. The theory like every intellectual product is constructed from different and possibly heterogenous ingredients, none of which, as far as we can tell from evidence, has anything to do with the killing or sacrifice of an aboriginal giant. This latter motif, understood as an “Indo-European mythic system” that is supposed to account for, say, Zoroastrian macrocosm-microcosm homologies, is a construction of the modern scholar.³⁷

We also find the correspondence theory at the other end of the secular time, at the eschaton. It gives rise to a picture of the reconstituted body that may be thought to contradict the idea that the body of the resurrected will be incorruptible and hence immortal, since it is made of light (cf. WZ 35.60 *u-šān ast paymōzan ī bāmīg azarmān amarg*). The image of an eschatological luminous body could well have been derived from the Avesta (Yt 19.19): the immortality of the resurrected body was thought to imply its luminosity or even its being made of light *qua* matter. At the same time, in Pahlavi eschatological texts there is a tradition according to which Ohrmazd receives from the (personified) constituents of the *gētīg* world the body parts of the dead and, using the recovered material, restores the bodies of the resurrected. This account uses the correspondence theory to answer a pressing eschatological question: how is

36 The pairing of humans and animals with two types of *xrad* “intelligence” in Bd 28.4 is completely arbitrary.

37 See Lincoln (1986: 141). Lincoln’s proposed “Indo-European mythic system” (1986: 136–40) is without a solid basis. Certainly, Zoroastrian material does not support Lincoln’s “system”.

Ohrmazd able to restore to individual human beings their own bodies, that is to say, the bodies they had prior to death? Is the reconstituted body immortal because the *gētīg* creation as such is no longer subject to the passage of time? Then, does the luminous *paymōzan* of the body mean no more than being constantly bathed in celestial light?

WZ 34.7 *čē-m hēnd pañjān hambārdārān padīriftār ī widordān tanōmandīh ēk zamīg kē abar nigāhdāštār ī gōšt ud ast ud pay ī mardōmān ēk āb ī nigāhbed ī xōn ēk urwar ī dāštār ī wars ud mōy ēk rōšnīh ī padīriftār ī ātaxš ēk ham wād ī-m gyān xwēšān dāmān*

For I have five storage keepers that have received the corporeal matter of the dead: one is the earth, the guardian of people's flesh, bones and nerves; one is the water, the custodian of [their] blood; one is the plant, the keeper of [their] hair; one is the light, the receiver of [their] fire; and one is the wind [or air], the [keeper] of the vital soul of my creatures.

There are five pairs: the four Empedoclean elements plus the plant and their corresponding human body parts. The earth takes charge of the corporeal components that in other contexts have other keepers, such as the mountain–bone pair in Bd 28.4 cited above. The fire may be understood as the vivifying element inherent in the entire *gētīg* world (e.g. WZ 1.25), or as the originative substance (*tōhmag*) of humans and domestic animals (e.g. Bd 1a.17), or yet as the vital strength (*zōr*) of the living, including the plants (e.g. Bd 1a.13; 34.5). The inclusion of fire in this list owes less to these motifs than to Empedocles' four elements. The number of cosmic *hambārdārān* (five) is, as far as I know, completely isolated, and the human components entrusted to them constitute a haphazard list, relative, for instance, to the exposition of the constituents in WZ 30 (*abar passāzišn ī mardōmān*). The term *rōšnīh* most likely signifies celestial luminaries and, by metonymy, the sky. This gets Zādspram closer to the standard list of the fundamental *gētīg* creations – which presumably would have been important to him. The addition of the plant to the four elements probably had the same motivation; once the flesh is likened to the earth, the likening of body hair to vegetation is almost automatic.³⁸ Thus Zādspram

38 Prehistoric myths about construction of the cosmos from the body parts of a primordial giant could have contained the plant–hair correspondence (as the Chinese Pangu myth shows) or other ones. Based on these homologies, Lincoln (1986: 1–64) has tried to reconstruct an Indo-European myth of cosmogonic sacrifice and attribute the macrocosm–microcosm correspondences to this myth. The alleged Indo-European myth owes its existence rather to the scholar's mythmaking. As for the attribution, it runs roughshod over the evidence. The myth of construction of the cosmos from the body parts of a primordial giant or divine being is not at all as widespread as some Iranists believe. See Witzel (2012: 117–20); Burkert (1999: 100–02). Gignoux calls it a “very general theme”, citing the Vedic Puruṣa (RV 10.90), the Norse Ymir, the Babylonian Tiamat, and the Chinese Pangu. See Gignoux (1994: 37, 51). This kind of superficial comparison of different myths with a view to extract a common origin or a general theme from it reminds one of the nineteenth-century comparative mythology. The version of the Pangu myth given in Witzel (2012: 119) is an amalgamation of

ended up with the idiosyncratic number five. In its peculiarity the scheme remains nonetheless problematic, unless one grants what I have argued above: within the frame of the correspondence theory the variety of the homological schemes is limited only by the imagination and the availability of motifs (here, that of the four elements).³⁹ The theory is speculatively productive.

Here is the *Bundahišn* version.

Bd 34.4 *čiyōn gōwēd kū Zardu(x)št az Ohrmazd pursīd kū tan ī wād wānīd ud āb wāzīd az kū abāz kunēnd ud rist-āxēz čiyōn bawēd*

It is said that Zardušt asked Ohrmazd that the body which the wind destroyed and the water carried [away] – from where they remake [it] and how will the resurrection transpire?

Bd 34.5 *u-š passox kard kū . . . ēk ēk az awēšān ka-m dād padīš duš-kartar būd kū rist-āxēzišnīh čē-m andar rist-āxēz ayārīh ī čiyōn awēšān ast ī ka-m awēšān kard nē būd bawēd būd abar nīger kū ka ān ī nē būd ēg-im be kard ān ī būd čim abāz nē šāyēd kardan čē pad ān hangām az mēnōg ī zamīg ast ud az āb xōn ud az urwar mōy ud az wād gyān čiyōn-šān pad bundahišn padīrīft xwāhēm*

[Ohrmazd] answered thus . . . it was harder to make each of them [i.e. bodies] when I created them than [doing it] when resurrecting [them], for at the final resurrection I will have the assistance of those which I did not have when I [originally] made them. Consider: when I made what did not exist [previously], why would I not be able to [re]make what [already]

two motifs: the primordial egg and the giant-cum-world. There is no killing or sacrifice in the myth. The divine being emerges from the egg with an adze in his hand and “chisels” the land and the sky, the celestial luminaries, and the “four seas”; then the giant dies and from his body parts the formation of the world is “completed”. But in fact, the constituents of the world made from his body duplicate his creations prior to his death. I have already said a few words about Tiamat. I refer the reader to George (2016) and Rochberg (2020) for detailed expositions and further references. The Vedic myth of Puruṣa is the only one that can be described as a cosmogonic sacrifice, but this must be placed within the Vedic conception of ritual. In my view, it is an indigenous development. Cf. Gonda (1975: 137–8, 388–92); Malamoud (2002: 109–25, esp. 119–22). The Ymir myth (*Vafþrúðnismál*, 20–1; *Grímnismál*, 40–1; *Völuspá*, 3, the presence of Ymir in this passage is not certain) is relatively late. In any case, Ymir is not sacrificed but murdered. Cf. Larrington (2001); Starý (2012). Also see Assmann (1998: 143–5), on the Egyptian conception of “cosmic god”; particularly noteworthy is the so-called Berlin Hymn to Ptah.

39 According to Bd 28.17 the *mēnōg* and *gētīg* things are divided in four groups of seven items. The number of groups given in Bd 28.18, however, is actually seven: 1. Ohrmazd and the six Amahraspands: invisible and intangible; 2. atmospheric/celestial phenomena: visible and intangible; 3. heavenly spheres beyond the sky: invisible and tangible; 4. terrestrial phenomena: visible and tangible (only five listed); 5. mental powers: invisible and intangible (only two listed); 6. facial organs: visible and tangible; 7. internal organs: invisible and tangible. The last three groups are apparently microcosmic and the first four macrocosmic. It is not clear what corresponds to what. The ambition of the list seems to be the demonstration of the heptadic organization of the world.

existed? For at that time I demand the bones from the *mēnōg* of earth, [demand] the blood from [the *mēnōg* of] waters, [demand] the hair from [the *mēnōg* of] plants, [demand] the vital soul from [the *mēnōg* of] wind, as they accepted at the time of the original creation.

The number and the items compared are hard to explain. Zādspram (WZ 30.3) divides the components of human body (*tanīg*) into three states: solid, liquid, gas (*wādīg*), but then counts *gyānīg* (i.e. related to the vital soul) as a separate category (30.22). Still, it perhaps makes some sense to think of the three-state division as the basis of the homologies in this text, to which (again!) the plant–hair is added. As I stated above, once the body is likened to the earth in one respect or another, which seems to be the basic homology in the use made in Zoroastrian Pahlavi texts of the correspondence theory, what grows on one must correspond to what grows on the other.

Parallel traditions

Note that the astrological correspondence theory could have operated without the idea of divine procreation of the world, as it did everywhere else. I pointed out that in Mesopotamian or Hellenic myths, such as Hesiod’s *Theogony*, theogony and cosmogony more or less coincide. Okeanos is both a god and a river, and so on. In this frame, the sense of the “birth” of a cosmic constituent like the sky or (sometimes even) the earth is dependent on the readily comprehensible birth of an anthropomorphic deity. But this frame is absent from Zoroastrianism and was thus unavailable to Pahlavi authors. One cannot use it to account for the rather counterintuitive doctrine of the anthropomorphic procreation of the cosmos. A multitude of factors must have contributed to the formation of this doctrine. Its elaboration must have been indigenous although drawing on different intellectual traditions. The reason for this assertion is not hard to see. Nothing comparable is known from neighbouring or cognate cultures.⁴⁰ The similarity of the Orphic cosmic egg or the Vedic “golden embryo” is only apparent.⁴¹ In the former, one or other primordial being produces an egg. In some verse fragments from the *Rhapsodies*, Chronos “fashions” the egg.

This Time unaging, of immortal resource, begot
Aither and a great Chasm, vast this way and that,
no limit below it, no base, no place to settle.⁴²
Then great Time fashioned from (or in) divine Aither
a bright white egg.⁴³

40 In the Maori myth of creation, for instance, the sky god (Sky Father) begets the constituents of the world by his various wives (see under Thompson’s Motif-Index A615). See Witzel (2012: 128–9, 132).

41 See under Thompson’s Motif-Index A641 and Witzel (2012: 121–3). On the status of the primordial egg in Egyptian cosmogony, see Morenz (2004: 177–9).

42 Incidentally, the Egyptian primordial deity Atum grapples with a similar problem. See Bickel (1994: 62–4).

43 West (1984: 198). In the “most ancient version” of Orphic theogony, according to Brisson (2003: 19), the cosmic egg comes from Night, and the “first born” (god) emerges

Athenagoras and Damascius say that Chronos “generated” the egg. The distinction between generating and fashioning does not seem to be important. “Chronos generated the materials, and made them into an egg... The poet [of the verse fragments cited above] used the word ‘fashioned’, but he did not picture Chronos either as shaping the egg with his hands or as extruding it from his serpent body.”⁴⁴ In the *Rhapsodies*, from the cosmic egg is born a deity called, among others, Protogonos “the first born”, understood in a cosmogonic sense. In the Hieronyman theogony, the serpentine Chronos produces and splits the cosmic egg giving birth to Protogonos, while the moieties become heaven and earth. Epiphanius ascribes to Epicurus a cosmogony in which “the world began in the likeness of an egg”. The wind in the form of a serpent encircles and splits the egg and thus releases the atoms which sort themselves out according to their weight and size into various cosmic constituents.⁴⁵ In the Greek context the cosmogonic egg seems to be a specifically Orphic motif. It is in some ways at odds with the Hesiodic theogony, which nonetheless provides the basic structure of all known versions of Orphic theogony.⁴⁶ It is not quite clear why the egg motif was adopted in the Orphic lore, i.e. what it was meant to accomplish (but see below).

A parallel figure is the Rigvedic “golden embryo” (*hiranyagarbha*-): “In the beginning the golden embryo arose. Once born, he was the one lord of being [or creation] (*bhūtá*-). He held the earth and the sky” (RV 10.121.1). The “high waters” “carry [or are pregnant with: *bṛhatīr*] the embryo that is everything” (121.7). The embryo gives rise to Agni, the god Fire/(sacrificial) fire, the “one life-breath of the gods”. According to another hymn, the waters “received” the “first embryo” (witnessed “by all the gods”!). “On the navel of the unborn was set the one on whom all creatures rest” (RV 10.82.5–6). It is quite possible that here, too, the sacrificial fire is meant. The waters would then be ghee libation. In the later Vedic literature the “embryo” is interpreted as the egg from which Prajāpati emerges after a year (Śatapatha Brāhmaṇa 11.1.6). In the Chāndogya Upaniṣad (3.19), what emerges from the split egg are the earth, sky, ocean, rivers, clouds and mountains – curiously similar to the cosmogony Epiphanius ascribes to Epicurus. I do not have the requisite knowledge to comment on the development of the Vedic theme. It appears to me that in the Brāhmaṇic egg we have a typical cosmogonic motif: the egg that would become a god (or, later, the world) is borne by the primordial waters.⁴⁷ If the later Vedic egg is in fact a speculative interpretation of the “golden embryo”, it must be

from the egg. Derveni and Eudemian Orphic theogonies do not include a cosmic egg. “There was, however, an old Orphic theogony, an alternative to the one appearing in the Derveni Papyrus, in which the central episode was the creation of a cosmic egg inhabited by Eros, which will be the origin of the world. Such a cosmogony is alluded to by Aristophanes and probably by Euripides” (Bernabé (2007: 128)). Bernabé (2007: 129), gives a synoptic table of the known Orphic theogonies. See also West (1984: 116–38) for the Eudemian theogony.

44 West (1984: 200).

45 See West (1984: 202).

46 Cf. Bernabé (2002: 105–11); Bernabé (2007: 111); Brisson (2003: 19, note 2).

47 Cf. Bickel (1994: 23–31); George (2016); Witzel (2012: 121–3).

admitted that it is an indigenous development. In the Brāhmanic Prajāpati (and hence the egg), sacrifice achieves ontological efficacy, so to say, vis-à-vis the world.⁴⁸ Later on, the egg perhaps signified the unity of existence, the central principle of the Upaniṣadic conception of knowledge.⁴⁹

The Orphic Zeus of the Derveni Papyrus (col. XIII) swallows either Uranus' penis (i.e. the sun) or the primordial god Protogonos (Eros), and becomes "pregnant" and gives birth to all the gods and the entire universe.⁵⁰ The motif of Zeus swallowing the cosmos and giving birth to it anew was taken up by the Stoics Cleanthes and Chrysippus, but the ingestion and generation are periodic in accordance with Stoic cyclical (*ekpyrotic*) cosmology.⁵¹ In Orphic Protogonos theogony Zeus, by swallowing the primordial god Phanes ("who makes or is manifest") and reissuing the cosmos, becomes the progenitor of all there is.⁵² The motif may be understood as the ultimate affirmation of Zeus's power and of the permanence of the cosmic order over which he rules.⁵³ The ingested god is given other names, including Metis "cunning intelligence". In Hesiod's *Theogony* (886–900) Metis is Zeus's first wife. Zeus swallows her in order to forestall the birth of her son who would eventually overthrow Zeus.⁵⁴ In the Orphic poem cited by the Derveni author the theme is explicit: "[And now he is] king of all [and will be] afterwards (col. XVI)... Zeus is the head, Zeus the middle, and from Zeus is everything fashioned (col. XVII)".⁵⁵ Zeus's ingestion of Protogonos (or Uranus' penis) on the advice of Night appears to be an escalation of Hesiod's motif with the same intent, namely the finality of Zeus's rulership, particularly, it seems, in the Derveni theogony.⁵⁶ The re-generation of the cosmos by Zeus is the ineluctable consequence of the Hesiodic theogony.⁵⁷ Within the frame of this tradition, the only way Zeus

48 See Lévi (1898: 13–35); Gonda (1975: 388–90). Note that Prajāpati is sometimes represented as the father of creation. See Lévi (1898: 20–1).

49 See Gonda (1975: 339–43).

50 Scholars are divided on the significance of the term *aidoion* in the passage. Cf. Bernabé (2002); Bernabé (2007); Bernabé (2019), for further references about the controversy see footnote 80; Brisson (2003: 22–9); Santamaría (2016). According to Bernabé, the divine generations in the Derveni Papyrus are four: Night, Uranus, Cronus, Zeus. "After the swallowing of Uranus' phallus, what was multiple becomes one in the god. In this 'second theogony,' the river of the evolution is a foreign active principle that seems to be new: Zeus' intelligence" (Bernabé (2019: 118)), perhaps akin to Anaxagoras' *nous*. See also West (1984: 202–6) about the presence of this theme in Rhapsodic and Hieronyman theogonies.

51 West (1984: 113).

52 See Brisson (2003: 19–20).

53 Bernabé argues the same point in (2007: 107–10), from the premise that Zeus swallows Uranus' penis.

54 Cf. Santamaría (2019: 53–5).

55 See Kouremenos et al (2006: 134–5). Cf. Santamaría (2019: 61–2): "In the Derveni poem, all of the gods and the entire universe are once again gestated inside Zeus and reborn. In this way, the god born last becomes the first, in both chronology and power, as all others spring from him."

56 See Bernabé (2007: 102–6).

57 Cf. Detienne (2003: 155–9).

could possibly become the origin of the cosmos is by the ingestion of what is there and reissuing it.⁵⁸ “After swallowing the god [i.e. Protogonos] who is the origin of all things”, writes Brisson, “Zeus will cause the universe in its totality to come forth from himself.”⁵⁹ This can perhaps explain the adoption of the cosmic egg motif in some Orphic theogonies, i.e. as a symbol of the unitary origin of the world.⁶⁰

Conclusion

Each of these Vedic and Orphic themes is the result of a particular system of thought and is developed according to specific intellectual-traditional parameters. The similarities that they may appear to bear in relation to the Zoroastrian doctrine of divine procreation of the world are insignificant, meaning that they signify neither a common origin nor borrowing in either direction.⁶¹ Since my focus is on the Zoroastrian doctrine, I have emphasized the structural difference between the notion of cosmogony on the one hand and that of creation on the other. According to this doctrine, the *mēnōg* state of the world coincides with its gestation in Ohrmazd’s body. The homologous generations of the cosmos and of the human being underlie the macrocosm-microcosm correspondence schemes of Zoroastrian Pahlavi texts. I do not mean that the *doctrine* of the procreation of the world was developed prior to the adoption of the astrological theory. The latter probably prompted and contributed to the elaboration of the doctrine. But, according to the author of Bd 28.2, it is the generation of the cosmos and human being from “a drop of water” that underlies the correspondences between the two. Logically, in other words, the identical processes of generation ground the existence of corresponding features. In view of Pahlavi authors, the notion of the generation of the world in the manner of a human being is logically prior to macrocosm-microcosm correspondences.⁶²

In conclusion I raise once again the question of the formation of the doctrine of cosmic procreation of Zoroastrian Pahlavi texts. This question should be

58 The motif of ingestion as such is of course present in the Hesiodic theogony. Scholars seem to agree that the motif is taken from the Hurrian-Hittite myth of Kumarbi. See, for instance, Burkert (2004: 92): “Zeus swallowing the phallus of Uranus cannot be separated from the famous Hittite text about the Kingdom in Heaven.”

59 Brisson (2003: 24). See also Bernabé (2007: 109, 114–15). “The central purpose of the poem seems to be the glorification of Zeus, who is presented not only as an absolute king and successor of himself, but also as the center of the history of the universe, after having assumed in himself the first creation and having become the demiurge of the second and definitive world creation, which follows rational principles” (Bernabé (2007: 124–5)). Bernabé gives a summary of the “plan” of the poem in 2007: 125–6, and its narrative line in 2007: 127, as he reconstructs the text.

60 Cf. Detienne (2003: 156–7).

61 The same observation is also valid concerning the relation of the Vedic and Orphic motifs, i.e. their similarities are superficial and insignificant.

62 Cf. the description of Ahura Mazda’s formation of human fetus in Yt 13.11: “I maintain (*vīdāraēm*) sons enveloped in wombs in such a way that they would not perish until the appointed partition, in wombs where I assemble the bones, the muscles, the intestines, the sinews and the limbs.”

considered and answered in reference to at least three intellectual constellations. One is the allusion to the “engenderment of existence” by Ahura Mazdā in the Gāθās. There seems to be a reflection of Mazdā’s “gestation” of the Aməša Spənta in Yt 13.81.⁶³ The Pahlavi translations of the relevant Gāthic passages interpret “engenderment” as bearing on Wahman, and not on the world. This translation can be explained in a number of plausible ways that do not preclude the (marginal) existence of the notion of divine procreation of the world in Zoroastrian lore. On the other hand, without this reference – whether it is understood as inspiration or authorization or perhaps both – the Zoroastrian Pahlavi doctrine could hardly have existed. In the standard doctrine of creation Ahura Mazdā is imagined as the intelligent and skilful maker of the world. This conception is fully articulated in the Old and Young Avestan texts, albeit with significant variations. The Pahlavi version of the doctrine is straightforwardly derived from the Young Avestan scheme.⁶⁴ It is clearly incompatible with Ohrmazd’s procreation of the world. How could this latter find acceptance if it was not thought to have a Zoroastrian justification? What conceptual need could such an improbable adoption of a foreign doctrine serve which the standard doctrine did not? The second intellectual source of the Pahlavi procreation doctrine was the macrocosm-microcosm correspondence theory which had become popular in astrological speculations during the Hellenistic period and particularly in the Late Antiquity. The fixation in the correspondence theory on the numbers seven and twelve is unquestionably astrological. In the *Timaeus* Plato had already likened the human being to the cosmos on the basis of their like possession of a divine (intelligent) soul.⁶⁵ The presumptive validity of the correspondence theory is evident from the somewhat undisciplined manner in which it is deployed in the Pahlavi texts we considered above.⁶⁶ According to Tardieu, it entered Zoroastrian literature in the

63 See Hintze (2014: 230–1) who argues this on the basis of a semantic analysis of *raēθβaiia-* “mix” and the past participle of $\sqrt{v\acute{a}r\acute{e}d}$ “grow”.

64 See Ahmadi (2021).

65 Another contribution Plato makes in the *Timaeus* to the theory is his idea that the divine makers of the human being “imitated” their “father”, the demiurge of the cosmos: “He himself was the craftsman and creator of the divine beings, and he gave his own offspring the job of creating mortal beings. In imitation of their father, once they had received from him the immortal seed of soul, they proceeded to fashion a mortal body in which to enclose it, and to assign the whole body to be its vehicle” (*Timaeus* 69c). A late fifth-century or early fourth-century Hippocratic text *On Regimen* expresses a similar idea: the cosmos is the model according to which human body is put together. See Lloyd (1975: 182–9); Schluderer (2018: 42–5). “The cosmos is the model to which the body corresponds and is similar, being composed of the same elements and powers” (Schluderer (2018: 51)). It is always the cosmos that is the model. Incidentally, Plato uses “father” in the *Timaeus* (28c, 37c, 41a) to characterize the relation of the demiurge vis-à-vis the cosmos because the latter is itself an eternal, intelligent being. In generation the cause produces an effect like itself. The genetic characterization does not imply that Plato actually envisaged the process of creation as a sexual reproduction, *contra* Pender (2010). Cf. *Timaeus* 34b, 37c, 68e.

66 In the *Bundahišn* chapter entitled *abar čiyōnīh ī mardōmān* “on the characteristics of human beings”, seven metals are said to have come into existence from seven parts of Gayōmard’s body (the text actually lists eight correspondences, but glass, which is paired with fat, and vital soul, which is paired with gold, are inappropriate; one is not a metal,

Sasanian period via Manichaeism.⁶⁷ This theory prompted the elaboration of the doctrine and provided it with deployment opportunities. But I emphasize that on its own it could not have given rise to the idea of divine procreation of the world. The Zoroastrian doctrine is exceptional, as far as I can see, or at least extremely rare (if one wants to count the Orphic Protogonos theogony as a comparable lore), whereas the astrological theory was current as a general frame of cosmological speculations for centuries throughout the West Asian and the Mediterranean cultures.⁶⁸ The third intellectual factor in the formation of the Pahlavi doctrine must have been the idea of the genetic efficacy of (male) semen, something similar to Aristotle's "transmission" of species form through the semen. In Aristotelean biology the form (of the species) is present in the semen in "potentiality" (*dúnamis*) and is transmitted by it as the efficient cause to the offspring (see *On the Generation of Animals* 730b14–23 and 740b25–29; *Physics* 2.7, 198a24–27). The maternal contribution is simply the provision of the womb. We can see a reflection of this idea in WZ 35.57, for instance. This view of procreation was probably ancient and widespread.⁶⁹ Aristotle formulates it within the frame of his own theory of the causal efficacy of the (species) form. The use of the term *tōhm* "seed" in Pahlavi cosmological

List of abbreviations for text sources

D	<i>Dēnkard</i>	Published in Fazilat (2004)
Y	<i>Yasna</i>	Published in Geldner (1885–96)
Yt	<i>Yašt</i>	Published in Geldner (1885–96)
Bd	<i>Bundahišn</i>	Published in Pakzad (2005)
PRDd	<i>Pahlavi Rivāyat Accompanying the Dādestān ī Dēnig</i>	Published in Williams (1990)
Dd	<i>Dādestān ī Dēnig</i>	
ŠGV	<i>Škand-gumānīg Vizār</i>	Published in de Menasce (1945)
WZ	<i>Wizīdagīhā ī Zādspram</i>	Published in Gignoux and Tafazzoli (1993)
RV	<i>Rigveda</i>	Published in Jamison and Brereton (2014)

the other is not normally classified as part of the body in Pahlavi texts). Other lists display the same randomness. Cf. ŠGV 26.8–13, 24–5 (p. 252); and the text from the *Dēnkard* cited by Gignoux (1994: 33). The association of the human body with seven metals must be derivative of the astrological idea that the soul in its descent from the heavens is imprinted by each of the seven planetary spheres it passes through.

67 Tardieu (1984: 308).

68 See Gignoux (2001: 46–8).

69 On the genetic efficacy of the Heliopolitan Atum, see Assmann (2001: 119–20); Traunecker (2001: 74–6).

speculations in the sense in which Greek natural philosophers used *archē* proves this point.⁷⁰

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