

ORIGINAL ARTICLE

Frawahr and Embryo Development Stages in Middle Persian Text of *Selections of Zādispram*

Abstract

In the Middle Persian text of *selections of Zādispram*, the stages of embryo development, *frāz-waxšēnīdar* Frawahr power (ether), and the three functions of “germinating,” “adding,” and “caring” create the way of caring for and nurturing the cellular environment. By creating a defense barrier, this power protects the cells against factors that reduce the cell reserve, including differentiation stimuli and apoptosis (programmed cell death) stimuli. The question raised in this research is that according to the stages of evolution (transformation), “how does Frawahr power guard and take care of the development stages of humans before birth and until death?” In other words, the present study aimed to investigate and analyze the theory of “development,” which explains that a cell contributes to the process and stages of embryo development and self-renewal by performing symmetrical division based on the draft and planning of the Frawahr power. The research method was descriptive-analytical, focusing on the attitude of *Zādispram* about concepts, such as embryo development and genesis. The findings revealed that the Frawahr power and the proliferation potential could prompt the accumulation of cell lines, including embryonic and bone marrow cells; accordingly, the embryonic body causes renewal in humans.

Key words: *Selections of Zādispram*, Frawahr, Embryo, Ether, Apoptosis, Humans

Received: 26 Oct 2022; Accepted: 2 Jan 2023; Online published: 1 May 2023
Research on History of Medicine/ 2023 May; 12(2): 79-90.

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Citation:

Sharghi E, Najari H, Zarshenas Z. Frawahr and Embryo Development Stages in Middle Persian Text of *Selections of Zādispram*. *Res Hist Med.* 2023; 12(2): 79-90.



Introduction

Zādispram, the author of *selections of Zādispram*, is the son of *juwān - jam* or *gušn - jam*, a Mubadi from Sirjan who lived in the third century of Hijri. He was from a clerical family, and his father, *juwān-jam Shapurān* (son of Shapur), is known as the leader of Bahdinan. *Zādispram*, named the *Hērbad of Nimrooz* at the beginning of the selections of *Zādispram*, resided in Sarkhs and Sirjan (in Kerman) for some time and proposed innovations to simplify the purification ceremony known as *Barašnom* (Barashnum), which was opposed by Zoroastrian theologians, including his brother Manouchehr (Tafazzoli, 1999, pp. 145-146). *Selections of Zādispram* can be considered a universal work written based on the extensive knowledge gained from Avestan literature. In the third chapter, he mentions *Dāmdād-Nask* and *Spand-Nask* about life after death. In fact, *Zādispram* cited this *Nask* twice (Chapter three, paragraphs: 34-57) and wrote another treatise titled types of offspring (*nibēg ī tohamag ošmurišnīh*; Gignoux and Tafazzoli, 1993, pp. 49-51) which is not available today.

This work can be divided into four parts based on the organization, structure of the text and Zoroastrian traditions: (1) the past traditions in chapters 1-4 and a narrative of the creation of the universe, the presence of evil spirit (MMP: ahreman) and the development of impurity caused by evil spirits, and the coming of religion, (2) the history of Zoroastrian religion in chapters 5-28, which includes mythological events, the emergence of religion before Zoroastrianism and the division of the Sassanid Avesta, (3) dealing with the knowledge and human development, indicating the author's interest in Zoroastrian physiology and anthropological issues, such as astronomy and the development of human beings from the dimensions of the *mēnōg* ideal and human functions in relation to them in chapters 29-31, *frāz-waxšēnīdar* Frawahr germinating power (ether), *gyān* power, and *ruwān* structure, and (4) In the final section of the book, in chapters 34-35, the author explains the principles and beliefs of life after death, the *frašō.karēti* event (renovation of the universe), some details of the immortals, a description of the last days of the world, and the concepts of resurrection (Cereti, 2016, pp. 101-109).

The present study aimed to investigate and analyze the scientific beliefs and knowledge of inner powers from the point of view of *Zādispram*, taking into account systematic views about humans. Among the Middle Zoroastrian Persian texts, *the selections of Zādispram* are the only works that provide a detailed descriptive structure of human destiny. In examining the cosmology and theology of mazdeyasna's thought, such as the theory of the macrocosm, *Zādispram* regards the human and the structure of the body as similar to the concepts such as "general matter" and "universal matter" (Chapters 29-35), or the theory of the cosmos, i.e., "a part in relation to the whole." In this regard, branches of knowledge of Zoroastrian anthropology, such as historical anthropology of the body, medical anthropology, and historical anthropology in the Sasanian period, were evaluated from the *Zādispram* perspective. He especially looked at allegorical designs, the psyche morphology, and the relationship between man and the cosmos.



Statement of the problem

Zādispram's historical experience taking a Zoroastrian anthropology approach reveals that he attempted to scientifically understand the Zoroastrian man and his culture. What has happened in his anthropological theories (as an interdisciplinary science of natural sciences and humanities) is not just bringing sciences together but integrating them to develop research fields akin to an encyclopedia of mazdeyasna's sciences. The study and exploration of scientific topics from Zādispram's anthropological point of view clearly show how to integrate different branches of knowledge, such as biology and chemistry of the human body, with theology (based on neuroscience findings) and mythology. The legacy of Avestan texts is rich in concepts and terms related to historical anthropology, and the works of Middle Persian texts are influenced by it.

In the meantime, the book of *selections of Zādispram* expresses another type of Zoroastrian anthropological concept, and it seems closer to Gatha's theological aspects in interpreting human powers and organs. Basically, the exploration of the previous schools of anthropology reveals the reliance on Greek, Syriac, or Indian concepts and heritage. Zādispram, as a moderate scholar, expresses the common scientific ideas and arguments during the Sasanian era with inferential methods. The image that Zādispram presents of the mortal *gētīg* and immortal *mēnōg* components compares man to the structure of the spiritual world of gods (30, 34):

*agar ahlaw abāg ruwān az yazadān bahr ī kard kārān xwāhēd čiyōn ham-
āfrāh ud ham-dastwar kē pad ardīg frazām abāg spāhbed be ō dar ī šahryār
šawēd ud dahišn ī hu-āfrāyišn windēd.*

“If he is pious, he will ask, along with *ruwān*, the gods for a reward for his actions, like a counselor and advisor who was not lucky enough to see the king with the lieutenant general and find the reward of his good advice” (Rashed Mohasel, 2006, p. 84).

Constitutive components of human existence, such as the psychological issues, the power of Frawahr, the conscience, and the five gems (*gōhr*), have been fully discussed in previous studies such as Bailey (1943). Anthropological concepts in Avesta (Y. 26, 4 or Y.13, 149) deal with the power of *ahu-* soul, essence, being, and will as one of the forces that make up human beings besides (*daēnā-*) religious intuition. Shaked's (1994) reliance on the power of life (*uštāna-/gyān*) gives special meanings to the characteristics of this power, i.e., light and heat, along with the three powers of *ruwān*, Frawahr and *waxš*, also to the “life-bearing wind.” He believes that the activity of the senses and their connection with the heart is realized through the soul. He also refers to *wārom* power (MMP: *wārom*) and considers the presence of this power as a sign of good and bad desire and a sense of recognition by human thoughts and actions. To him, *wārom* is interpreted as “memory,” which stimulates human mental activities.



By posing the problem of identifying human parts from the perspective of ancient Iranian schools of anthropology, Gignoux (2001) conducted a comparative study in Middle Persian sources and *Zādispram* attitudes or views. By quoting the themes of four temperaments (*čahār passāxtīh*) in Middle Zoroastrian Persian texts, Gignoux regards *Gōhr* and the nature of creations, including humans are warm and moist. What he attributes to the power of the *waxš* (soul) indicates that this power is not an independent entity but controls human existence with the will (*axw*) power. In his view, the power of *waxš* is defined as a “progressive, rising” vanguard power. In other words, the power of *waxš* helps the psychic power.

Zādispram also has a special look at the anthropology of the body. From his point of view, the psycho-somatic power (body) can be examined from two distinct aspects: (a) natural or biological sciences, such as the science of biology and medicine, and (b) cognitive sciences, such as human ethology, sociology, philosophy, and theology. He establishes a link between these two aspects, whose ignorance makes it impossible to analyze the human body comprehensively. In his opinion, the biological aspect of the body is related to living through the body and the participation of the human body (*kirb*) in the era of *frašagird* illumination. The knowledge of anthropology, which experimentally deals with issues such as the origin of man, distribution of population and its dispersion, classification of man, the connection of races, physical characteristics, and environment, contributes to (from *Zādispram* perspective) measuring the body and its parts through semantic interpretation of phrase *frāz waxšēnīdār-frawahr* because he especially emphasizes the use of human quantities in anatomical components, i.e., “growing,” “nurturing,” and “cultivating.” He believes that the manah-power or Bahman causes human development “thinking (Bahman) is through building and not building through thinking” by Frawahr power.

Zādispram considers himself an empiricist in intuitive matters. In other words, all his experiences and views, including religious experience, cosmology, dealing with the how of human construction and composition, and the concepts of eschatology, are interwoven with subjective experiences. However, one of the basic foundations of *Zādispram*’s teachings in examining medical issues and the nature of the human body is dealing with the body (somatic) and dividing the components of human existence into characters such as “physical,” “spiritual,” and “psychic.” These theories seem to resemble medical terminology in Ayurveda (traditional Indian medicine), reminiscent of the term *tridoša-* comprising the two parts: *tri-* (three) and *doša-* (fluids in the body). In the end, it is noteworthy that in *Zādispram*’s thought, creation means returning immortals from (*āfurišn*) to the mortal world (*dahišn*).

Research hypothesis

As cited in *Zādispram*, fertilization, reproduction, and gametes (sperms and eggs) are realized by a pre-determined (pre-cellular) program, i.e., the *waxšēnīdar* Frawahr power. A cell initially divides into two identical cells by mitosis division; then, the blastoma and the accumulation of blastoma form a cell mass resulting from meiosis division.



Literature review

Bailey (1943) transcribed the twenty-ninth chapter of this book and translated it into English. In the chapter devoted to the formation of the man called (mardom), he rather comprehensively discusses the inner and material powers cited in the Middle Persian texts and *selections of Zādispram*. He talks about human processing, the seven layers of human existence, dividing the body into four parts, human physiology, and *mēnōg* ideal dimensions described by ancient anthropology, which concurs with Hippocrates's ideas. Taking the creation of the nature and structure of dualism in the Sasanian era based on the concepts of ancient Iranian anthropology and the late Avesta (Y. 29,4), Shaked (1994) devotes a chapter to the components of human existence in Zoroastrian texts. He especially attends to the terms of anthropology and *Zādispram* attitude toward the issue of three immortal souls. Then he refers to the set of intellectual powers (virtue, intelligence, wisdom) in *Zādispram* thought.

In a review of Sasanian medicine and "*Medicine in selections of Zādispram*," Sohn (1996) analyzed and discussed the two medical chapters of this book, namely "making human from the body, soul, and mind" and "making (or developing) human." He also explains the role of the generative power of Frawahr and its function in forming the embryo and the differences between the semen state and embryo emergence. Sundermann (1997) examined the concept of Farwahr in Manichaeism. In a treatise written in Parthian Pahlavi about the soul (*Gyān wifrās*), he refers to one of the five holy elements or the five sons of the first "*Ardāw frawardīn*," which is the air or ethereal element. He emphasizes that *frawardīn* is a plural noun that should be considered singular. Other elements are water, earth, air, and light, which correspond to the four elements in Greek, namely water, earth, air, and fire. Therefore, in his view or Pahlavi Parthian interpretation, this interpretation implies the fifth element or ether, which Aristotle added to the four elements of Empedocles. Sundermann (1997) used the "*Ardāw frawardīn Yazd*" expression, which he later (in 1997) replaced with "*Ardāw frawardīn*."

By examining and analyzing the concepts of Iranian anthropology (man and cosmos in ancient Iran), Gignoux (2001) characterizes human nature and its constituent parts from the perspective of ancient Iranian anthropology and a comparative study of Middle Persian texts, quoting the views of *Zādispram* by raising a question. Then, he explains the link between the soul and the *Frauuāši* power, referring to the concept of three immortal souls in this text. In fact, he connects *Frauuāši* power to the function of the human being, and then he deals with the function of this power in forming the fetus, respiratory and digestive system.

Discussion

1- *Frauuāši* power

This power is generally thought to be a co-walker that has been there before and will be until the end, but apparently, only the good people have this power, and bad ones do not benefit from it. The *Frauuāši* of the deceased return to their homes in the final days of the year and are happy with the happiness of the descendants. *Frauuāši*



in Avestan also means a pious man. Furthermore, it can be interpreted in three different ways: the heavenly soul or the immortal principle of man, ancestors' spirits in the Zoroastrian religion, and warriors. *Frawardīgān* is a ritual held for the *frauuaši*. Based on paragraph 49 of "*Frawardīn Yašt*," the *frauuaši* of pious people come out of their tombs in "*Hamaspasmadam*" (AV: *hamaspasmāediia*, MMP: *hamaspasmadam*), which is actually the last festival of the six great festivals of the year and with thanksgiving for the creation of man held in five last days of March (26 to 30) (Modi, 1992, pp. 465-473).

2- Concepts and word derivation

In Avestan literature, man consists of body and soul. Apart from "bone" (*ast*), "tail of life" (*uštāna-*), "body or form" (*kəhrp-*), "breath" (*qanman-*), "tissue cohesion" (*utaiiūtī-*), "power and consistency of texture" (*təuuiši-*), generally used as a pair, the *frauuaši* power, the second immortal soul, is fully discussed in this literature. *frauuaši* (AV.: *frauuaši*, OP: *fravarti*, MMP: *frawahr*) has different concepts and meanings in ancient Iranian languages, i.e., Avestan literature and Middle Persian Zoroastrian texts.

Jackson considers this noun to be the evolved form of the old form of **fravarti* and believes that *var-* is the root of this word which means "to choose," "to select," or "to believe" (Jackson, 1983, pp. 80-93). However, Boyce (1975, p. 118, as cited by Soderblom) stated that **fravarti-* is derived from *Var-* (covering and surrounding). Gray remarked that this noun was written as *pra-vr̥t-aj-ąs* in Old Aryan (pIE: **pro-urte-i-es*) and meant ancestors and patrons. Furthermore, he commented that **pró-ur̥-te-į-es* meant supporters and was derived from the Indo-European word **ure-* which means covering and surrounding. It finally turns into (Av: *fravašyah-*) to match the phonetic rules in the Avestan language (Gray, 1928, p. 79).

Following such views (**fravarti->fravaši-*), Bailey believes that this power was probably originally applied to a spirit or warrior in the past who possessed **vr̥ti-* "valor, courage." This word remained in the transformation process of Middle Persian as "brave and courageous" and then in Dari Persian as "champion" (Bailey, 1943, p. 109). *Frawardīn Yašt* karde (1, 11) portrays the function of *Frauuaši* power and its explanations, such as the creation of the world, guarding of the world and *mēnōg* beings (1-10), supporting the Ahura Mazda data, maintaining the sky and the earth, the Lady of the Waters, i.e., *anāhīd-yazad*, fetus in the womb, and protecting the fetus until birth (11). As an allegory of *Frawahr-yazad*, Ahura Mazda's own *Frawahr*, *amahraspandān*, is mentioned in the second part of Zoroastrianism (80-86). A list of heroes from *gayōmard* to *sōsāns* is given in the third part of this *Yašt* (87-142). It seems that among the various derivations suggested for *Frauuaši*, this word is derived from *var-* which means "to choose or select." With all the interpretations mentioned by researchers, we tend to conclude that this word is derived from the ancient Iranian word **pra-ur̥tī-* (Pirart, 2001, pp. 126-131). Based on *Frauuaši* word studies, Kellens states three different viewpoints: 1). *var-+-ti-* means "preserve," 2). *var-+-ti-* means "to choose," "to select," 3). *vart-+-i-* means "rotate". Finally, Kellens believes that



(var-) is the root of this word, which means “to choose”)(Kellens, 2011, pp. 748-762).

3- Amniotic sac

According to embryology and related studies, especially those conducted on *frawardīn Yašt* (Y.13), before the implantation of the fertilized egg in the endometrium from the third to the eighth week, i.e., the embryonic stage, *Frauuāši* power attempts to develop the parts of the fetus until birth and after death. As stated in the same *Yašt* (1.11):

āṇḥam raya xvarənaṇhača vīdāraēm zaraθuštra, azəm barəθrišva puθrē paiti. vərətā apara. iriθintō ā dātāt vīdātaoṭ vyāhva urvaṭ. čaēm astiča gona dərəwdača uruθwamča paidyās ča fravaxšas ča.

“I will protect them (the Frawahr of the virtuous) with glory and grandeur, O Zoroaster. I protect the sons (children) of pregnant women [those who] in the wombs not to die until the appointed time [of their] birth, and form their bones, flesh, skins, intestines, feet, and genital organs” (Molaei, 2013, p. 92).

According to Bartholomae, whose ideas are probably more preferable among researchers, what emerges from the provisions of this clause is that it evaluates the resurrection in line with the physiology data and *tan ī pasēn* in two parts. The verb *vīdāraēm* shows that the first part (*vīdāraēm. vīdātaoṭ*) discusses the issue of development and protecting the fetus in the womb with the help of the *Frauuāši* power and the word *vīdātu-* reveals that the second part (*vyāhva- fravaxšasča*) refers to the re-formation of the bodies of the dead in the last day, the final judgment day. It then analyzes the concept of *asto-vīdāta-* and death literally known as “bone-breaker, flesh-decomposer” (Bartholomae, 1904, p. 1443). However, Nyberg does not consider Bartholomae’s analysis to be correct. He translates *vīdātu-* as separation and *vyāhva-* as giving birth (Nyberg, 1938, p. 309).

Other researchers examined these viewpoints. Humbach, regarding Yasna (Y. 48, 7), the word *vyam-* is derived from *vyā-* (*vyāhva*) from the passive singular form of the name and the root *vyā-* which means “covering.” Based on its Vedic form (*vyā-*), it means “covering, coverage,” which is also accepted by Insler (1975, pp. 93-289) and Humbach (1991, p. 201). Molaei, in line with the concept of “choroid-uterus” in the later Avesta, especially *Yašt* (13, 11), and the idea about the word *vyāhva-*, believes that *vyā-* states that it means fetal membrane or amniotic sac (Molaei, 2013, p. 146). In this view, the fetus is surrounded by a membrane called the amnion. In fact, amniotic fluid is clear and watery and increases with the age of the fetus. The authors of the present paper speculate that these researchers regard the amniotic sac or (AV: *vyā-*) as a protective cover and cushion that makes the fetus endure many blows to the mother’s body. Also, the amniotic fluid prevents the embryo from sticking to the amniotic membrane. Yarmohammadi et al. (2013) also briefly discussed female reproductive



cycle whose first phase was *pēš-ābest* in which females cannot become pregnant. The second phase was *ābast* which is the fertility phase for females and the third phase was *daštān* denoting menstrual period.

According to the analyses mentioned above, philosophical-medical concepts in the Sassanid period, and the interpretations of Frawahr power, if we want to interpret it from a specialized and semantic perspective (especially the gradual process of embryonic stages (Y13, 11) and the verb (*vīdāraēm*) and noun (*vyāhva-*) forms), we should include the science of embryology and spiritual physiology.

It is known that during its intrauterine life, the fetus is surrounded by three layers: (1) Amniotic membrane: it is a liquid called amnion which is between this membrane and the fetus, and the fetus floats in it. This liquid protects the fetus against strong impulses and the effects of the environment, dryness, and movements. (2) Chorion membrane: it is outside the amniotic membrane through which the villi emerge and are attached to the uterine mucosa. (3) Decidual membrane: This layer consists of the surface cells of the uterine mucosa. The embryo is implanted in this layer, and it leaves the uterus with the embryo during childbirth.

From the science and physiological structure of mazdeyasna perspective, human creation is based on individual knowledge (*āgāhīh*) and absolute or general knowledge (MMP: *harwisṣ āgāhīh*). *āgāhīh* is always associated with *mēnōg* and vital power, or as stated in Gathas, it is linked with the “spirit or soul of creation” (AV: *qnmān*). This knowledge realizes in three layers (MMP: *tōf*): *fārāh* (MMP: *xwarrah*), Frawahr power, and body power. The authors believe that *Frauuaši* power (Frawahr) includes the body or the delicate body that forms the mental, intellectual, and emotional aspects of human behavior. This unit of consciousness-mind, which has a *mēnōg* state, is covered in matter (universe). Generally, these finer material components develop from five main elements (soil, water, fire, air, and space), which, in turn, form Frawahr power. According to the evidence obtained from *Frawardīn Yašt*, the *Frauuaši* power is apparently the exact counterpart of the last birth and birth of the material body (universe), but lighter and much subtler or ethereal. The subtle body or *Frauuaši* power and the soul (*ruwān*) will be separated from each other after death, and the knowledge, sensory, and perceptual data are transferred to the *mēnōg* worlds through this mind-consciousness unit.

As stated by Yasna (Y.26,7), the soul joins its *Frauuaši* after death, and in fact, the souls of the dead are considered to be the same as the *Frauuaši* power of the pious (Bailey, 1943, p. 109). It seems to be an exemplary or astral form that mediates and links the earthly body and the soul (MMP: *waxš*). According to *Yašt* (13, 11), after the planning stage, the *Frauuaši* power gradually creates the cosmic consciousness between the soul and the fertilized egg.

The verb *vīdāraēm*, which refers to the issue of keeping the fetus in the womb, and the meanings of the word (*vyāhva-*) were examined as well. The authors believe that the best interpretation can be “bodysuit” or “etheric womb.” Since the *Frauuaši* power is an ideal and *mēnōg* one, it is first placed around the amniotic sac and then enters this membrane. This bodysuit protects the uterus from any external influences



before the soul enters it.

In mazdeyasna's thought, birth or creation occurs first as a unique *mēnōg* and then as a material thing (universe). At this stage, the fetus separates its protective part from the etheric womb or body, i.e., the choroid or membrane, so that it can move and maintain itself by the environmental influences inside the amniotic sac (referring to the verb *vīdāraēm*). Embryo development begins when the primary raw *mēnōg* material (*Frauuāši*) contacts the soul (*ruwān*). This contact is not limited and finite astral connection and continuity. Rather, it is similar to the body state at the time of the emergence of thought, movement, and action. It is noteworthy that the movement of the spirit (*waxš*) or a material object is impossible without a conditional and auxiliary prototype which is an essence that provides maintenance and movement.

4- The role of Frawahr in embryo formation

Zādispram discusses the role of Frawahr in embryo development (30, 35):

Frāz-waxšēnīdār frawahr abāg tōhm andar ō gāh šawēd ud pad hamgām az tōhmīh be ō gumēzagīh ud az gumēzagīh be ō freh-xōnīh wardēnēd.

“The Frawahr develops with the egg and from egg (state of being an egg) to a mixture (union of male and female egg) and turns from a mixture into full blood.” (Rashed Mohasel, 2006, p. 84)

Zādispram explained the process of cell multiplication and fertilization by the “progressive, germinative” power in terms of the Frawahr power. He used the term *frāz-waxšēnīdār* for the Frawahr power as power or embryonic body and the default map of the human body, including gender, the child in the womb or bodysuit. The *frāz-waxšēnīdār* power, accompanied by the agency (*abāg*) and fertility (*tōhm*) power, causes transformation, movement, and divisibility (30, 35).

... u-š pas – iz čašm ud abārīg handāmān nigārēd ud pas [man] pušt dēsēd. az pušt pahlūg frāz waxšēnēd čiyōn tāgān pad spīzišn az draxt. ud pas abzārān ī andarōnīg <ī> aškamb <ī> Kōdak pad xwēškārīh paydāg be kunēd ud pas dast, pāy, angustān be rōyēnēd az sar mazg be ō angustān rawēnēd čiyōn ān ī afsard snēxr. pas mijag, brūg, wars nigārēd.

“... and then the eyes and other organs are made, and the spine is formed. The ribs grow from the spine as sprouts grow from a tree. Afterward, the internal organs of the child's abdomen are developed, and then the hands, feet, and fingers grow. The brain flows from the head to the fingers like frozen snow. Then the eyelashes, eyebrows, and hair grow.” (Rashed Mohasel, 2006, p. 84)

Zādispram states that the fertilized egg travels through the fallopian tube and di-



vides several times along the way, and some cells of the outer layer provide the basis for its construction. Meanwhile, the inner layer cells begin the differentiation process, which causes a child's growth. When the small mass reaches the uterine environment, the main fertilized cell, called a blastocyst at this stage, divides into a hundred cells. *Zādispram* equates the process of metamorphosis (*wardēnīdan*) and the blastocyst implantation in the uterine wall with some cells that produce a chemical substance called gonadotropin. The placental gonadotropin and the ovaries begin to produce estrogen and progesterone to feed the embryo. *Zādispram* calls this process *frēh-xōnīh*.

From the perspective of anthropometry, *Zādispram* describes and measures Frawahr power in the structure of the human body. One of the anthropometric indicators from of *Zādispram* viewpoint is the use of the Frawahr power in determining the size, characteristics, and traits of the gender and body dimensions by *waxšēnīdār*, which is likened to the dimensions and structure of the house (29, 2). The issue of quantity, dimensions, and size mentioned in *Frawardīn Yašt karde* (1, 2-5-11) also refers to the process of reproduction, the "long time" or "prescribed time," and the role and composition of the fetus in the womb.

*Frāz-waxšēnīdārīh frawahr kē dast pāy waxšēnēd ud narīh ud mādagīh
paydāgēnēd ud rāg ud pay passazēd ud astān ō ham barēd ud rāh, widarag
paydāgēnēd ī dar rōzan wišāyēd bē ō rāzkirrōg kē kadag dēsēd.*

"Frawahr realizes growth. It creates male and female, makes veins and legs, joins bones together, and creates a passway, which opens doors and paths. It is like building a house." (Rashed Mohasel, 2006, p. 77)

The Avestan noun *frauuašī-* is translated in Sanskrit as *vṛddhi-* "growth, development" (Dhalla, 1908, p. 259). Similarly, *Zādispram* also considers the three functions of *waxšēnīdan* (to grow), *abzūdan* (to add), *pādan* (to care) for the Frawahr power (30, 35) (Rashed Mohasel, 2006, p. 84). It is noteworthy that in *Zādispram* thought, creation means returning beings from *āfurišn* to *dahišn* (universe). Being is motionless and still in this process (MMP: *a-jumbišn stī*), and Frawahr power makes it move. This power (Frawahr) is manifested in the qualities and sensations, such as the qualities of the soil, e.g., color, taste, smell, tangibility, and the tangible quality of water manifested in its taste. The perceptible quality of fire is visibility, which is similar to the eye's perception; finally, the perceptible quality of the air is the palpability and quality of the "ether" that *Zādispram* equates with *frawahr ī andar wāy*.

Conclusion

In the *Zādispram* viewpoint, the developmental stages of the embryo are realized by the participation of the Frawahr power and through the *mēnōg* model. The embryo is first implanted in the "astral bodysuit" (Frawahr). Then, the embryonic mass, the embryonic stage, and the form and the body of the embryo are formed by the *waxšēnīdār* power. In this view, mythopathology (discovering the true foundations of a myth



based on medical science) seems to match the science. Given the stages of growth and development, *Zādispram* divides the *frāz-waxšēnīdār* power of Frawahr into four processes: hyperplasia (increase in the number of cells), hypertrophy (increase in cell size), increase in intercellular material, and tensegrity stage (the Frawahr power creates median plates, discs and axes of the body, and the anterior-posterior, dorsal, ventral, left and right parts of the fetus after division, and fertility stages). In this view, the Frawahr power, due to its plasticity, transforms the compression elements in the spherical structure of the body (MMP: *tan ī girdīg*) into a floating tension network because such a structure creates a stable balance and minimizes the stored elastic energy. These stages develop (1) ectoderm and central and peripheral nervous system such as skin and hair, (2) mesoderm and skeletal muscle system, lymphatic vessels, and (3) endoderm, inner layers, digestive and respiratory systems, and bladder.

Conflict of Interest

None.

References

- Bailey, H.W., 1943. *Zoroastrian Problems in the Ninth-Century Books*. Ratanbai Katrak Lectures. Oxford: The Clarendon press.
- Bartholomae, Ch., 1904. *Altiranisches Wörterbuch*. Berlin: Walter de Gruyter & co.
- Boyce, M., 1975. *A History of Zoroastrianism*. Vol. I. Leiden: E. J. Brill Publications.
- Cereti, K.J., 2016. *Pahlavi literature*. Translated by P. Soraya. Tehran: Frazan Rooz.
- Dhalla, E.M.N., 1908. *Nerisenghs sanskrit version of the Abestan Āfringān-I Dahmān and Āfrin-I Khšathryan rendered in to English*. Montana: Kessinger Publishing.
- Gignoux, Ph., 2001. *Man and Cosmos Ancient Iran*. Serie Orientale Roma Xcl. Roma: Istituto italiano per L’Africa el’oriente.
- Gignoux, Ph., and Tafazzoli, A., 1993. *Anthologie de Zādsparam*. Édition critique du texte pehlevi, traduit et commenté. Paris: Publisher pour l’Avancement des Études Iraniennes.
- Gray, L.H., 1928. *The foundations of the Iranian religions*. Bombay: Cama Oriental Institute Publishing.
- Humbach, H., 1991. *The Gāthas of Zarathustra and the other texts*, Part II. Heidelberg: Winter Publishing.
- Inslar, S., 1975. *The Gāthas of Zarathustra*. Acta Iranica. Vol. 8. Leiden: E. J. Brill Publications.
- Jackson, A.V.W., 1893. *Avesta Reader*. Stuttgart: Kohlhammer Publishing.
- Kellens, J., 2011. *La notion d’âme préexistante* (langue et religions indo-iraniennes). Paris: L’Annuaire du collage de France.
- Modi, J.J., 1992. *The Religions, Ceremonies and Customs of The Parses*. Bombay: British India Press.
- Molaei, Ch., 2013. *Review of Frawardīn Yašt Avestai hymn in praise of Frawahr*. Tabriz: University of Tabriz.
- Nyberg, H.S., 1938. *Die Religionen des Alten Iran*. Leipzig: Harrassowitz Publishing.
- Pirart É., 2001. *Avestique s. Journal Asiatique*, 289(1), pp. 87-146.



Rashed Mohasel, M.T., 2006. *Zadesperam Ideas*. Tehran: Institute of Human Sciences and Cultural Studies.

Shaked, Sh., 1994. *Dualism in Transformation: Varieties of Religion in Sasanian Iran*. London: School of Oriental and African Studies.

Sohn, F.W., 1996. *Die Medizin des Zādsparam, Anatomie, Physiologie und Psychologie in den Wīzīdagīhā ī Zādsparam, einer Zoroastrisch-Mittel Persischen Anthologie aus dem früh-islamischen Iran des neunten Jahrhunderts*. Iranica 3. Wiesbaden: Harrassowitz Publishing.

Sundermann, W., 1997. *Persermon von der seele. Eine lehrschrift des östlichen Manichäismus*. Berlin: Berliner Turfantexte XIX, Brepds, Turnhout.

Tafazzoli, A., 1999. *History of Iranian literature before Islam*. Tehran: Sokhan.

Yarmohammadi, H., Vatanpour, A., Hosseinialhashemi, M., and Zargarani, A. 2013. Monthly menstrual cycle in Bun-Dahišn, an ancient Persian Manuscript. *Journal of Research on History of Medicine*, 2(3), pp. 79-88.

