



BRILL

Journal for the Study of Judaism 43 (2012) 613-628

Journal for
the Study of
Judaism
brill.com/jsj

Bitenosh's Orgasm (1QapGen 2:9-15)

Pieter W. van der Horst

Comeniuslaan 51, 3706 XB Zeist, Netherlands

pwvdh@xs4all.nl

Abstract

It is certain that ancient Greek concepts of embryogenesis influenced Jewish theories about the coming-into-being of a foetus. In that light the enigmatic remark of Bitenosh in 1QapGen 2 about her "pleasure" in response to Lamech's worried question about who fathered their child (Noah) becomes clear: she refers to her orgasm considered as a sign of her own seminal emission during their begetting of the child.

Keywords

embryogenesis, female seed, Greek influence, worried patriarch

When asked by her anxious husband, Lamech, who is the begetter of their newborn child, his wife, Bitenosh, reacts with the enigmatic remark that he should remember her "pleasure" (1QapGen 2:9-15). In this short contribution, I will argue that knowledge of ancient Greek theories of spermatogenesis and embryogenesis may shed light upon this curious utterance by Noah's mother in the *Genesis Apocryphon* from Qumran.

In her seminal study *Die Zeugungs- und Vererbungslehren der Antike und ihr Nachwirken*, Erna Lesky describes in detail how ancient Greek philosophers and physicians developed various theories about the coming-into-being of human seed (*sperma*) and of the embryo.¹ For the early Greek philosophers, the traditional notion of embryogenesis created a theoretical problem in their doctrines of heredity. This problem arose from the observation that the widespread notion that the father alone makes the child

¹ E. Lesky, *Die Zeugungs- und Vererbungslehren der Antike und ihr Nachwirken* (Mainz: Akademie der Wissenschaften und der Literatur, 1951).

and provides the substance for its coming-into-being and development could not explain why children often resemble their mothers. This traditional theory is clearly worded, for instance, in Aeschylus' *Eumenides* (657-661), where the god Apollo says:

This too I will tell you—and mark the truth of what I say: She who is called the child's mother is not its begetter, but only the nurse of the newly sown embryo. The begetter is the male, and she as a stranger preserves for a stranger the offspring, if no god blights its birth.²

Aeschylus here reflects the common assumption of the absolute superiority of the male role, a theory that had obvious implications for the evaluation of the position of women.

Alternative views, however, were developed by several Presocratic philosophers.³ This is stated clearly in a doxographical excerpt in the third-century C.E. grammarian Censorinus, *De die natali* 5.4:

On another point as well these authors [namely, the philosophers] have divergent opinions, namely whether an embryo originates solely from the seed of the father, as Diogenes and Hippo and the Stoics have written, or also from the seed of the mother, which is the view of Anaxagoras, Alcmaeon, Parmenides, Empedocles, and Epicurus.⁴

² Translation (slightly adapted) by H. Lloyd-Jones, *The Eumenides by Aeschylus. A Translation and Commentary* (Englewood Cliffs: Prentice Hall, 1970), 51-52. Cf. also Euripides, *Orestes* 552-553.

³ Apart from Lesky's classical *Zeugungs- und Vererbungslehren*, the reader can also consult shorter presentations in, e.g., Th. Hopfner, *Das Sexualleben der Griechen und Römer von den Anfängen bis ins 6. Jahrhundert nach Christus* I/1 (Prague: J. G. Calve, 1938; repr. New York: AMS Press, 1975), 132-36; E. Lesky and J. H. Waszink, "Embryologie," *RAC* 4:1228-42; H.-J. von Schumann, *Sexualkunde und Sexualmedizin in der klassischen Antike* (München: UNI-Druck, 1975), 102-4; G. E. R. Lloyd, *Science, Folklore and Ideology: Studies in the Life Sciences in Ancient Greece* (Cambridge: Cambridge University Press, 1983), 86-94; J. Blayney, "Theories of Conception in the Ancient Roman World," in *The Family in Ancient Rome* (ed. B. Rawson; London: Routledge, 1986), 230-36. See also in general M.-H. Congourdeau, *L'embryon et son âme dans les sources grecques (VI^e siècle av. J.C. - V^e siècle apr. J.C.)* (Paris: Centre d'histoire et civilisation de Byzance, 2007); L. Brisson et al., eds., *L'embryon: Formation et animation. Antiquité grecque et latine, traditions hébraïque, chrétienne et islamique* (Paris: Vrin, 2008).

⁴ N. Sallmann, ed., *Censorini de die natali liber* (Leipzig: Teubner, 1983), 8 ad loc., gives the pertinent references to the fragments of the authors mentioned.

The authors mentioned here as defenders of the view that female semen is also needed to form an embryo were not the only ones nor were their theories uniform. What they had in common, however, was that, by analogy with male ejaculation, they assumed that *it was during orgasm that female seed, too, was emitted*, although internally into the uterus.

There existed at least three different theories on the coming-into-being of human sperm: (1) the encephalo-myelogenic doctrine; (2) the pangenesis doctrine; and (3) the hematogenic doctrine.

The encephalo-myelogenic doctrine⁵ holds that there is a continuum of “brains—spinal marrow—sperm”; hence “sperm is a drop of brain,” as Diogenes Laertius (8.28) presents Pythagoras’ view. And the Pythagorean Alcmaeon of Croton is reported to have said that sperm is *enkefalou meros* (“part of the brain”; Aetius 5.3.3 = 24A13 D-K).⁶ Although this theory was rather quickly superseded by the pangenesis doctrine, its influence is noticeable in Plato’s *Timaeus*. In *Tim.* 77D Plato speaks of the “generative marrow”, and in 91A he says that “marrow (*myelos*) runs from the head down the neck and along the spine and has, indeed, in our earlier conversation been called seed (*sperma*)” (referring back to 73C and 74B). And although Aristotle spoke out strongly against this theory, which gave an extra impetus to its decline, even in the imperial period it still had some adherents, albeit by then in various amalgamated forms.

This doctrine in principle leaves room for a female contribution in the process of conception, the brains-marrow-semen continuum obviously not being restricted to males. And, indeed, we find that several of its adherents adopt the *epikrateia* principle as far as heredity is concerned. The principle of *epikrateia* (predominance) is best illustrated by the short statement in Censorinus, *De die natali* 6.4: “Alcmaeon said that the sex of that parent would be realized [namely, in the embryo] whose semen was most abundant [namely, in coition]” (24A14 D-K). That is to say, if the woman’s sperm prevails in quantity, a girl will be born, and if the man’s, a boy. This

⁵ Discussed by Lesky, *Zeugungs- und Vererbungslehren* 9-30; but see especially the extensive discussion in R. B. Onians, *The Origins of European Thought about the Body, the Mind, the Soul, the World, Time, and Fate* (Cambridge: Cambridge University Press, 1951; repr. 1988), *passim*. A concise doxographical account of several theories on this matter is to be found in Aetius, *Placita* 5.3-11 (in H. Diels, *Doxographi Graeci* [4th ed.; Berlin: de Gruyter, 1965], 417-22).

⁶ The fragments of the Presocratic philosophers are quoted according to the edition by H. Diels and W. Kranz, *Die Fragmente der Vorsokratiker* (Berlin: Weidmann, 1951-52; repr. 1996) (henceforth D-K).

principle, that the seed of either parent can be “overpowered” or “dominated” by the other’s seed occurs with various modifications in several ancient theories of sex differentiation (again, in spite of Aristotle’s opposition to every double-seed-theory; see especially *De generatione animalium* 1:20).⁷ The existence of female semen and the occurrence of female ejaculation is the necessary basis of the *epikrateia* principle and is affirmed by authors like Parmenides (28B18 D-K), Empedocles (31B63 D-K), Democritus (68A142 D-K), and several Hippocratic writers (see below). Let us look briefly at two theories concerning sex differentiation that imply a double-seed doctrine.

According to Empedocles, some parts of the embryo had their origin in the man’s seed and others in the woman’s seed. However, he seems to have combined this with a theory about the determining influence of the temperature of the seed (or the uterus).⁸ A late summary (in Censorinus, *De die natali* 6.6-7) schematizes this theory as follows:

$$Mw + Fw > Mm \quad Mc + Fc > Ff \quad Mw + Fc > Mf \quad Mc + Fw > Fm$$

(M = male; m = resembling the male parent; F = female; f = resembling the female parent; w = warm seed; c = cold seed; > indicates result)

Even though this tradition might not fully go back to Empedocles himself, it gives a fairly good idea of one of the ancient theories of sex differentiation and heredity. Parmenides’ view on this matter is different, because his is a combination of a double-seed doctrine with a theory about left and right to the effect that the sex of the child is determined by its position in the left or right part of the uterus (right for males and left for females).⁹ A later modification of this theory by Anaxagoras (59A107 D-K) seems to have introduced the idea that the sex of the embryo was determined by the part (left or right) of the body from which the seed had been formed. This results in the following schema:

⁷ For example *Gen. anim.* 1:20, 727b33-37: “Some think that the female contributes semen in coition because the pleasure she experiences is similar to that of the male, and also is attended by a liquid discharge; but this discharge is not seminal.”

⁸ The relevant fragments are 31A81, 31B63, 31B65 D-K.

⁹ See O. Kember, “Right and Left in the Sexual Theories of Parmenides,” *JHS* 91 (1971): 70-79; G. E. R. Lloyd, “Parmenides’ Sexual Theories,” *JHS* 92 (1972): 178-79.

Mr + Fr > Mm Ml + Fl > Ff Mr + Fl > Mf Ml + Fr > Fm

(M = male; m = resembling the male parent; F = female; f = resembling the female parent; r = seed formed in the right part of the body; l = seed formed in the left part of the body)

Anaxagoras brings us to the second theory concerning the origin of semen, the so-called pangensis-doctrine, of which he is the *auctor intellectualis* (see 59B10 D-K). This theory was refined in the school of the atomistic philosophers. According to Aetius (*Plac.* 5.3,6), Democritus said that sperm is formed from all parts of the body, like bones and flesh and sinews (68A141 D-K). He is quoted as saying: "Coition is a slight attack of epilepsy, for human being gushes forth from human being and is separated by being torn apart with a kind of shock" (68B32 D-K). Each seed contained within it a complete set of those parts necessary for the development of a child. He believed that in women, too, sperm was formed from all parts of the body. Aristotle tells us that the *epikrateia* principle was an important factor in Democritus' embryological system:

Democritus of Abdera also says that the differentiation of sex takes place within the mother; however, he says, it is not because of heat and cold that one embryo becomes female and another male, but that it depends on the question which parent it is whose semen prevails—not the whole of the semen, but that which has come forth from the part by which male and female differ from one another. (*Gen. anim.* 4.1, 764a6-11 = 68A143 D-K)

The pangensis doctrine was the dominant theory in several Hippocratic writings, especially in *On Airs, Waters, Places*; *The Sacred Disease*; *On Generation*; *On the Nature of the Child*; and *On Diseases* 4.¹⁰ A few quotations will suffice. *On Generation* 8.1-2 says: "Sperm is a product which comes from the whole body of each parent. (...) [The child] must inevitably resemble each parent in some respect, since it is from both parents that the sperm comes to form the child." *On Diseases* 4.32.1 says: "The sperm, coming from all parts of the body both of the man and the woman to produce a human being and falling into the uterus of the woman, coagulates." An interesting new feature is that the author of *On Generation* stresses that "both male and female sperm exists in both partners" (7.1).

¹⁰ See I. M. Loney, *The Hippocratic Treatises "On Generation", "On the Nature of the Child", "Diseases IV"* (Berlin: de Gruyter, 1981), esp. 19-22.

This thesis, in fact a principle of complete parity, results in the following schema:

$$M+/F+ > M \quad M-/F- > F \quad M-/F+ > M \text{ or } F \quad M+/F- > M \text{ or } F \quad M-/F+ > F \text{ or } M$$

(M = male; + = male determining sperm; F = female; - = female determining sperm; M or F / F or M = depending upon the epikrateia)

The third theory, the hematogenic doctrine, holds that semen originates from the blood. In fact it is nothing but blood in a certain state of coagulation. It is not certain who the author of this theory was.¹¹ It was already held by Diogenes of Apollonia (64B6 D-K), but it was Aristotle who promoted this theory to its influential position,¹² which it held until far into the Middle Ages. Aristotle's *De generatione animalium*, book 1, is our main source for his ideas on spermatogenesis. Of course, the basic principle is his teleology. Aristotle holds that the woman contributes to the embryo nothing but *hylê* (matter)—that is, she is the *causa materialis*—whereas the man contributes *telos* (end), *eidos* (form), *archê tês kinêseôs* (source of movement)—that is, the *causa finalis*, the *causa formalis*, and the *causa efficiens*. This male contribution is semen, but the female contribution is not semen but menstrual blood (*ta katamênia*). Semen is a residue of food. The body converts food into blood by means of a process of “concoction” (*pepsis*). Blood is the substance from which flesh, bones, and so on come into being. Because in childhood all (food >) blood is needed for the growth of the body and its parts, no semen or menstrual blood is produced. Once the body has become full-grown, it produces a residue of blood (< food), and in a process of further concoction, this residue is transformed into semen or menstrual blood. The essential element in this process of concoction (food > blood > semen) is bodily heat. Because males have greater bodily heat than females, males' blood can be “cooked” enough to reach the stage of semen; females can never reach this stage and hence can produce no semen, only (menstrual) blood.¹³ In the process of fertilization the semen brings form and movement into the matter of the menstrual blood. The state of aggregation of this blood changes only by the

¹¹ For discussion see Lesky, *Zeugungs- und Vererbungslehren* 120-25.

¹² See V. Happ, *Hyle: Studien zum aristotelischen Materie-Begriff* (Berlin: de Gruyter, 1971), 746-50.

¹³ Happ, *Hyle* 747, puts it concisely: “Die Katamenien sind also sozusagen ‘halbbares’ Sperma, das Sperma ist ‘gares’ Menstruationsblut.”

impact of the greater heat of the semen, "for the menstrual blood is semen not in a pure state, but in need of working up" (*Gen. anim.* 1.20, 728a26). Only semen in a pure state can "inform" the powerless female matter so as to make it develop into an embryo. It is clear that in Aristotle's version of the hematogenic doctrine, the female contribution to embryogenesis is very much reduced as compared with the pangenesis and the encephalomyelogenic doctrines and that orgasm as the moment of emission of female seed plays no role here.¹⁴

The great and influential physician Galen tried to combine Aristotelian elements with insights of Presocratic and Hippocratic writers as regards embryology.¹⁵ Galen assumed on the one hand that women did contribute their own sperm, but on the other hand he followed Aristotle in attributing a much lower value to this contribution: female sperm is by far less perfect, thinner, and colder than male sperm; it serves only as food for the male semen in its development into an embryo (see for all this especially Galen's extensive treatise *De semine*). As a real eclectic, Galen tries to run with the hare and hunt with the hounds. Nonetheless, despite Aristotle's influence, Galen maintains the concept of female sperm: *pseudós legetai to monou tou patros einai to sperma* ("it is false to say that sperm is only from the father"; *De sem.* 2.1), and he transmitted his theory to many a writer in the Middle Ages.¹⁶

The material surveyed so far covers the period of roughly 500 B.C.E. to 200 C.E. It has shown us that throughout this period a theory about female semen had its place side by side with a theory that denied females a contribution to embryogenesis. We have seen that all three theories left room for one form or another of a double-seed theory. Even Aristotle, the most staunch opponent of the idea of female semen, did not deny that a woman contributed her *kataménia* to the embryogenesis and that this menstrual blood was in fact from the same origin as male semen, albeit that it had

¹⁴ See J. Morsink, "Was Aristotle's Biology Sexist?" *Journal of the History of Biology* 12 (1979): 83-112.

¹⁵ See R. E. Siegel, *Galen's System of Physiology and Medicine* (Basel: Karger, 1968), 224-30; M. Boylan, "Galen's Conception Theory," *Journal of the History of Biology* 19 (1986): 47-77; J. Kollesch, "Galens Auseinandersetzung mit der aristotelischen Samenlehre," in *Aristoteles: Werk und Wirkung (FS P. Moraux)* (ed. J. Wiesner; Berlin: de Gruyter, 1987), 17-26.

¹⁶ The famous physician Soranus, too, takes an eclectic position: females as well as males emit sperm (*Gynaec.* 1:30-31), but female sperm does not contribute to the formation of the embryo (*Gynaec.* 1:12). See O. Temkin, *Soranus' Gynecology* (Baltimore: Johns Hopkins University Press, 1956; repr. 1991), 12-13.

stopped halfway in its development into semen “pur sang.” We have seen that many philosophers, physicians, poets,¹⁷ and others held that the contributions of men and women to the formation of a fetus were strictly equal.

If we want to suggest that the author of the *Genesis Apocryphon* was influenced by such a theory, we will have to demonstrate that a Jewish author could have known it, either because it had penetrated into early Jewish circles or because similar ideas were already current in Jewish tradition itself. In the Hebrew Bible we find only one single text that could perhaps be interpreted as implying a theory of female seed. This text is Lev 12:2: “Say to the people of Israel: If a woman *tazria*’ and bears a male child, then she shall be unclean seven days.” The word *tazria*’ is the *hip’il* form of *zr’* (to sow), a causative form which is used in the Hebrew Bible only here and in Gen 1:11-12, where it is said of plants in the sense of “produce seed, yield seed, form seed.” When a form of *zr’* means “to become pregnant, to be made pregnant,” it is always the *nip’al* form that is used (for example in Num 5:28; Nah 1:14).¹⁸ Because the *hip’il* form can hardly mean anything else than “to make seed,” commentators have got into trouble over this verse and proposed emendations of the text, because they found the thought expressed impossible.¹⁹ But one should beware of overhasty conclusions and leave open the possibility that the author of Lev 12 may have meant what he seems to write, that is, that a woman can produce semen.²⁰ But that remains uncertain. We shall see later, however, that this is exactly

¹⁷ Lucretius is a case in point.

¹⁸ Both the Samaritan Pentateuch and the LXX seem to have read the *nip’al* form *tzr’* in Lev 12:2 as well, but that is clearly the *lectio facilior*.

¹⁹ See, for example, A. B. Ehrlich, *Randglossen zur hebräischen Bibel* 2 (Hildesheim: Olms, 1968; repr. of 1909), 40: “Bei der durch *zr’* ausgedrückten Handlung kann das Weib nur als der passive Teil gedacht werden; vgl. Num. 5:28. Aus diesem Grunde ist für das hier unmögliche *tazria*’ entschieden *tivra*’ zu lesen” (!).

²⁰ See A. Kunz, “Die Vorstellung von Zeugung und Schwangerschaft im antiken Israel,” *ZAW* 111 (1999): 561-82, esp. 566-67. He states that Lev 12:2 proves that there was not a uniform theory of embryogenesis in ancient Israel. “Der mit *tazria*’ umschriebene Vorgang umfasst sowohl Schwangerschaft als auch Geburt. . . . Wenn dagegen in Lev. 12:2 eine Rolle der Frau als ‘Zeugerin’ des Foetus hervortritt, die sprachlich an die Samenproduktion der Pflanzen nach Gen. 1:11 erinnert, dann muss zumindest die biologische Funktion der Frau während der Schwangerschaft ins rechte Licht gerückt worden sein” (567). M. Stol, *Birth in Babylonia and the Bible: Its Mediterranean Setting* (Groningen: Styx, 2000), 7, states unequivocally that Lev 12:2 implies that the woman actively contributes her own seed.

what the rabbis understood this biblical verse to mean. However, before looking at the rabbinic evidence, let us cast a quick glance at earlier post-biblical Jewish material.²¹

The earliest postbiblical passage to be quoted is *I En.* 15:4, where the Ethiopic text runs as follows: "And you [i.e., the Watchers] were holy ones and spirits, living forever; but you have defiled yourselves with women and with the blood of flesh you have begotten (children); with the blood of men [or: after the daughters of men]²² you have lusted and you have done as they do, (producing) blood and flesh, (which) die and perish."²³ The expression "with the blood of flesh you have begotten children" could seem to be a reference to an Aristotelian theory of the *katamēnia* (menstrual blood) as one of the two components in the generative process, but it is more probable that "the blood of flesh" refers here either to humans (who are "flesh and blood"), with whom the angels should never had had sexual intercourse, or to the fact that the angels had sex with women during their menstruation (hence "defiled yourselves," cf. 10:11).

However, it seems certain that Aristotle's theory of the *katamēnia* as one of the two components in embryogenesis was known in Jewish circles in view of Wis 7:1-2: "In my mother's womb I was sculpted into flesh during a ten months' space, curdled in blood by virile seed and the pleasure (*pageis en haimati ek spermatos andros kai hēdonēs*) that is joined with sleep."²⁴ David Winston rightly points out in his commentary that the author here reflects passages like Aristotle's *Gen. anim.* 1:19-20 (see above). The same probably holds true for 4 Macc 13:20: "There [in their mother's womb] do brothers abide for a similar period and are moulded through the same span and nurtured by the same blood and brought to maturity through the same vitality."²⁵ And we should add here a passage from Philo, *QG* 3.47:

²¹ A very short and incomplete survey of this material can be found in H. J. Cadbury, "The Ancient Physiological Notions Underlying John I 13 and Hebrews XI 11," *The Expositor* (ser. 9) 2 (1924): 430-39, esp. 433-34; also in Lesky and Waszink, "Embryologie," 1241.

²² On the text-critical problem here see M. Black, *The Book of Enoch or 1 Enoch* (SVTP 7; Leiden: Brill, 1985), 152.

²³ Translation (slightly adapted) by G. W. E. Nickelsburg, *1 Enoch 1: A Commentary on the Book of 1 Enoch* (Minneapolis: Fortress, 2001), 267; see also E. Isaac in *The Old Testament Pseudepigrapha* (ed. J. H. Charlesworth; Garden City, N.Y.: Doubleday, 1983), 1:21. The passage refers, of course, to Gen 6:1-4.

²⁴ Translation by D. Winston, *The Wisdom of Solomon* (Garden City, N.Y.: Doubleday, 1979), 162. See also his commentary at 163-64.

²⁵ Translation by M. Hadas, *The Third and Fourth Books of the Maccabees* (New York: KTAV, 1953), 213.

“The matter of the female in the remains of the menstrual fluids produces the fetus. But the male (provides) the skill and the cause. And so, since the male provides the greater and the more necessary (part) in the process of generation, it was proper that his pride should be checked by the sign of the circumcision.”²⁶ And compare also his *Opif.* 132: “The menstrual blood (*ta katamênia*) too is said by scientists to be the bodily substance of embryos.”²⁷

These passages all clearly use Aristotelian terminology or show reminiscences of it, so one cannot but conclude that at least this form of the hematogenic doctrine of seed was known in educated Jewish circles. And it has been suggested that it is against this background, too, that one should consider a passage in the New Testament, John 1:13, about children of God “who were born, not of blood nor of the will of the flesh nor of the will of man, but of God.” The expression “were born of blood” (*ex haimatôn egennêthesan*)²⁸ is best explained against the background of an Aristotelian *katamênia* theory. Be that as it may, the evidence for knowledge of (originally) Aristotelian theories in Judaism does not prove the existence of a theory of female semen. As far as I know, there is no direct evidence for that outside rabbinic literature, unless one takes the fact that the Judaeo-Christian author of the Epistle to the Hebrews speaks about Sarah’s seminal emission (11:11 *katabolê spermatos*) to be evidence of pre-rabbinic knowledge of a double seed theory among Jews, which I think is highly probable.²⁹ However, it should also be borne in mind that knowledge of Aristotle’s ideas very probably implied knowledge of the ideas he combatted so firmly, that is, knowledge of double-seed theories. It may be pure coincidence that these theories are never (or hardly ever) mentioned, for we do meet them often in early rabbinic literature.

²⁶ The translation of the Armenian version is by R. Marcus in the LCL edition.

²⁷ Translation by F. H. Colson and G. H. Whitaker in the LCL edition. See the comments by D. T. Runia, *Philo of Alexandria: On the Creation of the Cosmos according to Moses* (Leiden: Brill, 2001), 317-18.

²⁸ For the plural *haimata* cf. Euripides, *Ion* 693 *allôn trafeis ex haimatôn*, and see, besides the commentaries on John 1:13, especially Cadbury, “The Ancient Physiological Notions.”

²⁹ I have argued this long ago in my “Sarah’s Seminal Emission: Hebrews 11:11 in the Light of Ancient Embryology,” in *Greeks, Romans, and Christians: Essays in Honor of Abraham J. Malherbe* (ed. D. L. Balch, E. Ferguson, and W. A. Meeks; Minneapolis: Fortress, 1990), 287-302; reprinted in my *Hellenism—Judaism—Christianity: Essays on Their Interaction* (2d ed.; Leuven: Peeters, 1998), 221-39.

In the Talmudim and Midrashim, we find the same variety of opinions as in Greek (or Latin) literature. Of course, there is the traditional theory that the woman does not contribute anything to the formation of the embryo, for example in *Lev. Rab.* 14.6.³⁰ That there was indeed Greek influence on rabbinic embryology³¹ is proved beyond any doubt by several passages, of which I will quote only the most illuminating.³² The Aristotelian position seems to be reflected in the short remark in *b. Ketub.* 10b: "It has been taught in the name of Rabbi Meir: Every woman who has abundant (menstrual) blood has many children."³³ A combination of an Aristotelian and a double-seed theory (as in Galen) is found several times—for example, in a baraita in *b. Nid.* 31a:

Our rabbis taught: There are three partners in (the conception of) man, the Holy One—blessed be He—, his father, and his mother. His father supplies the semen of the white substance out of which are formed the child's bones, sinews, nails, the brains in his head and the white in his eye. His mother supplies the semen of the red substance out of which is formed his skin, flesh, hair, blood, and the black of his eye. The Holy One—blessed be He—gives him the spirit and the breath, beauty of features, eyesight, the power of hearing, the ability to speak and to walk, understanding and discernment.

Almost identical passages can be found in *b. Qidd.* 30b, *Qob. Rab.* 5:10, 2, et al. The Aristotelian element is, of course, that the menstrual blood is regarded as the female contribution to the embryogenesis, whereas the fact that the *katamēnia* are explicitly called semen here classes these statements with the double-seed theory.

³⁰ See J. Feliks, "Biology," *Enc. Jud.* 4:1019-33; I. Simon, "La gynécologie, l'obstétrique, l'embryologie et la puériculture dans la Bible et le Talmud," *Revue d'histoire de la médecine hébraïque* 4 (1949): 35-64; J. Preuss, *Biblich-talmudische Medizin* (Wiesbaden: Fourier, 1992; repr. of the 1911 ed.), 434-504 = *Biblical and Talmudic Medicine* (trans. F. Rosner; New York: KTAV, 1978), 375-431.

³¹ Greek influence on rabbinic anthropology in general was proved long ago by R. Meyer, *Hellenistisches in der rabbinischen Anthropologie* (Stuttgart: Kohlhammer, 1937).

³² Some passages are discussed by F. Rosner, *Medicine in the Bible and the Talmud* (New York: KTAV, 1977), 173-78. Cf. also D. M. Feldman, *Birth Control in Jewish Law: Marital Relations, Contraception and Abortion as Set Forth in the Classic Texts of Jewish Law* (Westport, Conn.: Greenwood Press, 1980), 132-40. Several passages are also mentioned in B. H. Stricker's monumental work *De geboorte van Horus*, vol. II (Leiden: Brill, 1968), 121-24.

³³ I use throughout the Soncino translation of the Talmud and Midrash Rabba.

The double-seed theory is also explicitly referred to in *b. B. Qam.* 92a, where the rabbis discuss the fact that in Gen 20:18 (“For the Lord had closed up all the wombs in the house of Abimelech”), the Hebrew text has two forms of the verb “close” the absolute infinitive and the finite verb (MT has *‘atsor ‘atsar*):

Rabbi Eleazar said: Why is “closing up” mentioned twice? There was one closing up in the case of males, semen, and two in the case of females, semen and the giving of birth. In a baraita it was taught that there were two in the case of males, semen and urinating, and three in the case of females, semen, urinating and the giving of birth. Rabina said: Three in the case of males, semen, urinating and anus, and four in the case of females, semen and the giving of birth, urinating and anus.

Interestingly enough, within the framework of a double-seed theory, the rabbis developed their own variant of the *epikrateia* principle. This version simply held that if a man emits his semen first, the child will be a girl, but if the woman emits her semen first, the child will be a boy (see, for instance, *b. Ber.* 54a, *b. Nid.* 70b-71a, etc.).³⁴ This theory of crosswise sex determination was supported by an exegesis of Lev 12:2 and Gen 46:15 (Lev 12:2 being the only OT text discussed above). In *b. Nid.* 31a we read the following discussion:

Rabbi Isaac citing Rabbi Ammi [or: Assi] stated: If the woman emits her semen [*hip'il of zr'*, as in Lev 12:2] first, she bears a male child, if the man emits his semen first, she bears a female child; for it is said: “If a woman emits semen and bears a male child” [Lev 12:2]. Our Rabbis taught: At first it used to be said that if the woman emits her semen first, she bears a male child, and if the man emits his semen first, she bears a female child, but the Sages did not explain the reason, until Rabbi Zadok came and explained it: “These are the sons of Leah whom she bore unto Jacob in Paddan-Aram, with his daughter Dinah” [Gen 46:15]. Scripture thus ascribes the males to the females and the females to the males.

This last sentence makes clear how Gen 46:15 was understood: because this biblical text speaks of “sons of Leah” and of “his daughter Dinah,” Scripture implies that the fact that sons were born was due to Leah and

³⁴ These and other passages are discussed by Rosner, *Medicine in the Bible and the Talmud* 173-75.

that a daughter was born was due to Jacob. This fact, combined with the datum that the unique *hip'il* form of *zr'* in Lev 12:2 is taken to imply female seminal emission, seems to lead inevitably to this specifically rabbinic doctrine of sex differentiation. The obvious problem of a double pregnancy with both a male and a female embryo was elegantly solved as follows: "It may equally be assumed that both [man and woman] emitted their semen simultaneously, the one resulting in a male and the other in a female" (*b. Nid.* 25b and 28b).

It may be clear that this concept was not the fruit of an indigenous development of Jewish ideas about semen, nor was it the result of exegesis of Lev 12:2 and Gen 46:15. The fact that these biblical texts are only adduced in a context of discussion of *epikrateia* as the dominant principle of sex determination makes it highly probable that these biblical passages were only taken into service *a posteriori* as a scriptural prop to this theory. The Greek theory had probably already been adopted by the rabbis before the exegetical justification was there. It seems to me that in this respect, too, the rabbis were indebted to Hellenistic culture.³⁵

Against this background, the at first sight odd and enigmatic remarks by Lamech's wife in 1QapGen 2:9-15 become understandable.³⁶ In the story, Lamech gets very worried on seeing his newly born son Noah.³⁷ His anxiety about the conception of his son is caused by the fact that the baby strikes him as more than just a human being.³⁸ "I thought in my heart that the conception was (the work) of the Watchers, and the pregnancy of the Holy Ones, and it belonged to the Nephilin, and my heart within me was

³⁵ For another example in the field of Jewish embryology see P. W. van der Horst, "Seven Months' Children in Jewish and Christian Literature from Antiquity," in *Essays on the Jewish World of Early Christianity* (Fribourg: Universitätsverlag, 1990), 233-47.

³⁶ For Hellenistic influences in the Dead Sea Scrolls in general see, e.g., M. Hengel, "Qumran und der Hellenismus," in *Judaica et Hellenistica. Kleine Schriften I* (Tübingen: Mohr Siebeck, 1996), 258-94.

³⁷ On Noah birth legends in Qumran see J. C. Reeves, "Noah," in *Encyclopedia of the Dead Sea Scrolls* (ed. Lawrence H. Schiffman and James C. VanderKam; New York: Oxford University Press, 2000), 612-13. On the motif of worrying patriarchs see G. W. E. Nickelsburg, "Patriarchs who Worry about Their Wives: A Haggadic Tendency in the Genesis Apocryphon," in *George W.E. Nickelsburg in Perspective: An Ongoing Dialogue of Learning* (ed. J. Neusner and A. J. Avery-Peck; JSJSup 80; Leiden: Brill, 2003), 177-99.

³⁸ It is highly likely that before column 2 the text contained some information about Noah's extraordinary appearance and behaviour at his birth such as we find in *1 En.* 106. See W. Loader, *The Dead Sea Scrolls on Sexuality* (Grand Rapids, Mich.: Eerdmans, 2009), 288.

upset on account of this boy" (2:1-2).³⁹ Lamech's suspicion is that his wife, Bitenosh,⁴⁰ committed adultery with the "sons of God" from Gen 6:2, which would imply that he is not the father of the child. He then asks his wife to tell him the truth under oath. "(8) Then Bitenosh, my wife, spoke to me very harshly... (9) and said: 'Oh my brother and lord, remember my sexual pleasure!... (10) in the heat of intercourse, and the gasping of my breath in my breast.'" And a few lines further on she repeats emphatically, "(14) Remember my sexual pleasure!... (15) that this seed comes from you, that this pregnancy comes from you." In both line 9 and line 14, the Aramaic word *'adinti* occurs, rendered by most translators as "my sexual pleasure."⁴¹ It is cognate to the Hebrew *'ednah*, which occurs only in Gen 18:12 where Sarah laughingly says to herself, "After I have grown old, and my husband is old, am I to have pleasure?" (NRSV).⁴² In view of the fact that line 10 of our text explicitly speaks about "the heat of intercourse and the gasping of my breath in my breast," there can be little doubt that the word *'adinti* refers to Bitenosh's sexual pleasure.

How could Bitenosh think that a reference to the pleasure she experienced when making love to Lamech would allay his suspicion? That could only be a convincing argument if that pleasure entailed the conception of their child at the moment the two of them (and no one else) were together. Since the author implies that Bitenosh's argument did convince Lamech, he must have meant her reference to her pleasure to be a conclusive argument. So "pleasure" must here definitely be something much more specific than just the fact that Bitenosh had a pleasant time with Lamech when they begot Noah. That is to say, most probably Bitenosh here refers to her orgasm on that occasion. The fact that not only Lamech but also Bitenosh

³⁹ Translation by F. García Martínez and E. J. C. Tigchelaar, *The Dead Sea Scrolls Study Edition*, vol. 1 (Leiden: Brill, 1997), 29.

⁴⁰ On the name Bitenosh (also in *Jub.* 4.28), its spelling and meaning ("daughter of man"), see J. A. Fitzmyer, *The Genesis Apocryphon of Qumran Cave 1* (Rome: Pontifical Biblical Institute, 1971), 82-83.

⁴¹ See "my pleasure" (Fitzmyer; Vermes); "my voluptuousness" (Parry and Tov); "meine Wonne" (Maier); "mijn seksueel genot" (García Martínez, van der Woude, Popović). K. Beyer, however, translates "Schwangerschaft" (*Die aramäischen Texte vom Toten Meer* [Göttingen: Vandenhoeck & Ruprecht, 1984], 652), probably because Palestinian Aramaic *'dy* means "to be(come) pregnant"; see M. Sokoloff, *A Dictionary of Jewish Palestinian Aramaic* (Bar Ilan: University Press, 1990), 396-97. But this translation would make nonsense of the text.

⁴² I doubt whether Gen 18:12 implies the same as what I will argue for in the passage in 1QapGen under discussion.

had an orgasm at that moment is taken as a proof that it is the two of them together who begot the child.⁴³ That can only be the case if the female orgasm is here regarded as the event during which she emitted her own seed into her womb where it mingled with Lamech's seed so as to form the beginning embryo. It is only a double-seed theory that can explain why Bitenosh here takes recourse to an appeal to her *moment suprême* (to which Lamech was witness!) as a cogent argument.

This implies that the author of the *Genesis Apocryphon* was acquainted with what were originally Greek theories of embryogenesis (in whatever diluted form) in which the female orgasm was seen as the internal ejaculation of her semen. Otherwise Bitenosh's words would not make any sense.⁴⁴ The fact that, after having said again in 2:14 that he should remember her orgasm, in 2:15 she emphasizes that "this pregnancy comes from you," serves to underline that the child is a product of their "common enterprise," and not of anyone else. It is fascinating to see how an originally Greek scientific concept here serves to allay the anxious suspicions a biblical hero.⁴⁵

Postscriptum

In a recent article, Ida Fröhlich addresses, *inter alia*, the problem of Bitenosh's "pleasure" and seeks a solution in a direction very similar to mine.⁴⁶ She, too, argues that the background of Bitenosh's reaction is to be looked for in a Greek double-seed theory. However, I think she goes too far when she supposes that the author of 1QapGen was acquainted with "some

⁴³ Cf. what Aristotle says in *Gen. anim.* 1:20, 727b33-37: "Some think that the female contributes semen in coition because the *pleasure* she experiences is similar to that of the male." And see the reference to "pleasure" in the quote from Wis 7:2 in the text (above). Also Hippocratic texts refer to female "pleasure" during conception.

⁴⁴ It would certainly go too far to suggest that the emphasis on the heat of Bitenosh's orgasm (2:10) is to explain the fact that the child is a boy, in the sense of Empedocles' interpretation of the *epikrateia* principle (see above).

⁴⁵ Our thesis is supported by the fact that some Dead Sea Scrolls authors were obviously acquainted with Greek physiognomical theories; see M. Popović, *Reading the Human Body: Physiognomics and Astrology in the Dead Sea Scrolls and Hellenistic-Early Roman Period Judaism* (STDJ 67; Leiden: Brill, 2007).

⁴⁶ I. Fröhlich, "Medicine and Magic in Genesis Apocryphon: Ideas on Human Conception and its Hindrances," *RevQ* 25/98 (2011): 177-98. This article came to my attention only after the first draft of the present paper had been written. I am grateful to Prof. Fröhlich for being so kind to send me a copy of her article.

Greek systematic tractate” (188). I find no reason for such a proposal. It is much more probable that double-seed theories had become part and parcel of popular culture and enjoyed a much wider circulation than just among scholars.⁴⁷ Furthermore, although Fröhlich has a good sense of the medical models behind ancient pregnancy theories, she does not make sufficiently clear that it is female orgasm, interpreted as seminal emission, that plays the pivotal role in all these speculations.⁴⁸

⁴⁷) Lesky, *Zeugungs- und Vererbungslehren* 62, points out that passages in Varro, Pliny the Elder, and Horapollon indicate that these theories had become popular lore. We could add the passages in Heb 11:11 and 1QapGen 2.

⁴⁸) I owe thanks to Eibert Tigchelaar for valuable critical comments on the first draft of this article and to James Pankhurst for the correction of my English.

Copyright of Journal for the Study of Judaism: In the Persian Hellenistic & Roman Period is the property of Brill Academic Publishers and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.